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Clinical Illustrations of Fever. By ALEXANDER TWEEDIE, M.D.

Memoire sur le Traitement des Fievres Graves, &c. PAR M. DANCE.

DR. TWEEDIE'S unpretending volume forms, in every respect, a happy contrast to the declamatory and laboured treatise on the same subject which we have recently noticed. The style is simple, but impressive; the arrangement exceedingly judicious, the theoretical speculations few and well set forth, and the therapeutic facts copious and of unusual value. In short, we know of no volume on this subject to which the young practitioner might more safely refer for assistance in the hour of need. We shall presently adduce ample evidence in support of these assertions.

Dr. Tweedie divides his work into nine chapters; the first and second of which are occupied with some sensible preliminary observations regarding the nature of the disease, a brief but interesting history of the origin of fever hospitals, especially of the London, to which institution the author is attached, and tabular and statistic records of the London fever.

Concerning the nature of fever, we find him judiciously describing the disease as originally functional, commencing in the nervous system, and then inducing derangement of the circulatory and secretory functions. In this his views, though apparently the same, differ materially from those of Dr. Smith, inasmuch as while the latter insists that his febrile circle should be received as a logically perfect construction, Dr. Tweedie confines himself to the observation of a general occurrence, and founds upon it no dogmatic or exclusive proposition.

The third chapter is of great value, containing tables of the monthly admissions and mortality, and of the comparative ages of the patients treated during the period comprised in his report; viz. one year, ending September, 1829. To these we refer the reader as sources of much valuable information; they do not admit of transferrence or condensation.

We next meet with remarks on the general characters of the cases, divided into simple and complicated. On the disputed occurrence of simple fever, he speaks in these appropriate terms:—

"1. *Of the Cases of Simple Fever.*—I am aware that many distinguished pathologists not only doubt, but positively deny, the existence of what has been termed fever—that is, fever without evident symptoms of local inflammation. On this point, I may state that I have daily opportunities of observing cases, which correspond with the description of the simple fever of many writers, in which there is no preponderance of action in any organ that can be detected by symptoms; but when we recollect how often organic disease steals on, undetected by diagnostic signs, how much we are at times deceived by latent local diseases, the condition of the organs in what is termed simple fever, requires minute diagnostic investigation. Of the whole number of cases which occurred at the hospital within the period of this report, more than 100 came under the description of simple fever—that is, the disturbance in the system was general; there was no evidence by symptoms of affection, either in the head, chest, or belly. The character of this class of cases was, increased heat, accelerated pulse, thirst, and general functional disorder. The danger in such instances was comparatively trifling, and the mortality small; if danger arose, it was always to be traced to some local mischief, which had supervened in the course of the disease."

Of the 521 cases healed during the year in the Fever Hospital, 184 presented well-marked cerebral affections; and of these

many were simultaneously attacked by thoracic and abdominal inflammations. In 26 the head and chest, in 30 the head and belly, and in 14 the head, chest, and abdomen, were together affected. Dr. Tweedie takes particular notice of the obscuring influence often exercised by cerebral disorders over other concomitant affections, a point which has escaped the attention of many eminent writers, but which is of the utmost importance in many respects. Amongst others, it displays the immense value of the stethoscope as a diagnostic instrument, and silences, effectually, the indolent cavillers, who still exclaim, "Cui bono?" whenever the stethoscope is praised as an auxiliary to practical medicine. On its utility in latent pleuritis, Dr. Tweedie makes the subjoined observations:—

"The pain, cough, and hurried breathing in general, readily pointed out the disease when it occurred. In a number of instances, however, the symptoms in the chest had been entirely overlooked before the patient was admitted; while in others, the disease assumed a slow insidious form, without any very well-marked symptoms, except a little acceleration in the breathing, and a slight increase of the fever: when there had been much disturbance in the nervous system, it was very often so obscure as to be entirely overlooked. It is well known, that in latent pleurisy, unconnected with idiopathic fever, there are often few or none of the ordinary symptoms to point out its existence; and when it occurs in fever, with much cerebral disorder, it is evident how much this condition of the brain must tend to conceal, still more, the symptoms in the chest. The application of the stethoscope is, in such cases, the only sure method of detecting the state of the lungs, and under such circumstances its utility is unquestionable. It is to be regretted that a knowledge of its distinctive sounds is not more easily attained."

In the fourth chapter the author gives an excellent description of typhus, which he subdivides into simple and complicated, and by which he means "those fevers in which the brain and nervous system are early and severely affected, accompanied with symptoms denoting a morbid condition of the mucous membrane or skin, and a tendency to what is known by the term putrescency." The following cases and observations are of the highest practical importance, and well illustrate some of our strictures on Dr. Smith's venesectory operations:—

"I have treated several cases of adynamic or simple typhus fever, both in public and private practice, within the last twelve months; but certainly the proportion of these cases has been small, compared with the more acute forms of fever which have come under my care. I was called into consultation, by my able friend Dr. Marshall Hall, a short time ago, in a case precisely of this description; indeed it was an excellent illustration of its general character—great prostration of the muscular and nervous powers, delirium, hæmorrhage from the bowels, a few scattered petechiæ, soft fluent pulse, while the state of the skin, as to heat and moisture, deviated little from the natural state. I attended another case, with Mr. Duffin, about the same period. In this patient, the description of fever was purely adynamic; the most remarkable features were, the greatest muscular prostration, with nocturnal delirium, so that she lay sunk in the bed, passing her stools involuntarily without the slightest pain, or any symptoms of local disturbance. It was necessary, in the very first stage of the disease, to administer wine and stimuli very freely; under which treatment she slowly, though eventually, recovered; but her convalescence was retarded by that peculiar swelling of the lower extremity which I have elsewhere described."*

This lady certainly was saved by liberal doses of wine; and so great was the 'tendency to death,' that for 48 hours it was necessary to sit by her bed-side with the finger on the pulse, and to administer stimuli whenever it appeared to become soft and compressible; in fact, the heart's action seemed to be completely under the control of diffusible stimuli.

"If such treatment were applied to cases of epidemic fever in general, I need not anticipate the result; or, had antiphlogistic measures been adopted in the case of this patient, I can safely say, that the abstraction of a few ounces of blood, or even a brisk purgative, would have been instantly fatal. The necessity, therefore, for discrimination in the treatment of fever is evident; for although much information and assistance may be obtained from the prevailing character of the disease, yet every individual case must be treated *per se*; with due reference to its particular and individual circumstances."

The three following chapters are devoted to the consideration of the causes of fever, its general mortality, and the history and treatment of the fatal cases. Under the first head we find the subject of conta-

* "See my paper in the Edinb. Med. and Surg. Journal, October, 1826."

gion justly occupying a prominent place, and its agency proved by the most satisfactory reasoning, and an apposite assortment of striking facts, observed by the author, and his friend and former teacher, Dr. Alison, of Edinburgh. We, however, pass over Dr. Tweedie's views on this subject on the present occasion, as we shall shortly take an opportunity of noticing them, when we shall be occupied in investigating the merits of the numerous controversial essays which have been recently published on the late Gibraltar epidemic.

To the 7th chapter on the history and treatment of the fatal cases, and the morbid appearances observed on dissection, which comprehends 60 pages in a minuter character than the rest of the volume, we would especially direct the attention of the profession; in it the practitioner will find numerous valuable facts in semeiology, therapeutics, and pathology, and the student a useful model for the construction of cases and clinical reports. It is here that the contrast between Dr. Smith's Treatise and Dr. Tweedie's illustrations is most prominent. In the one, we find attempts without end to support a favourite syllogistic definition of a disease; in the second, we see a close adherence to its natural history and practical details. In the first, the treatment is either entirely suppressed, or noticed but with a cursory and occasional glance, while in the other, the treatment is properly placed in the most relieved position, so that its effect upon the symptoms of the disease may be readily understood. This, if we mistake not, should be the particular object of treatises on such a subject.

On the utility of blood-letting in fever, the restrictions with which it should be practised, and the examples in which it is detrimental, we find excellent remarks in the 8th chapter, in which the general treatment of the disease is considered. From this chapter we extract the following practical remarks,—

"Fully convinced as I am of the advantages of employing the lancet judiciously in fever, still it is not a remedy that should be indiscriminately adopted, as if fever were identical with inflammation. I feel it incumbent on me to give this caution as a check to those who abstract blood in fever, with the view of extinguishing it. The only stage of the disease at which this can be accomplished, and it is rarely accomplished, is at the very first onset, and before any decided impression on the various organs has been made. From my own observations, I can bear testimony to the practical import of the following doctrine as applied to fever. The aged, infirm, and habitual free livers, in all diseases bear bleeding ill. But, besides these more familiar classes, there is another, in which phlebotomy must be cautiously and sparingly practised. It consists of men, perhaps not above the middle age, whose minds and bodies, either from the circumstances in which they are placed, or from a natural ardour of temperament, are unceasingly taxed to the very utmost of their powers. With this class of persons, and medical men themselves too frequently belong to it, we must deal tenderly, or the mischief will speedily be irretrievable.* It is also a well-established fact, that in some epidemics, and even at particular seasons, fever is not only more fatal, but does not bear blood-letting so well as at other times. We also know that in complicated fever, the local symptoms vary in degree, and therefore require the discriminating hand of experience to apply, with advantage, a modification of this class of remedies. The experience of epidemic puerperal fever has shown, that though this severe, and often fatal, disease generally depends on inflammation of the peritoneum, and is most successfully treated by the early and free abstraction of blood, and other antiphlogistic measures, yet in some epidemics, or even in sporadic cases, these measures would be speedily destructive. This is owing not so much to any variation in the symptoms in the disease, as to some unexplained state of the system, at certain periods when puerperal fever is prevalent."

Again, at page 175, Dr. Tweedie thus further adverts to this important topic:—

"As far, however, as my experience of the epidemic fever of London for the last ten years has enabled me to judge, the symptoms have generally required the employment of bloodletting at the commencement; yet, from the facts stated, and from what has been observed by many practical writers, I think it should be kept steadily in mind, that an epidemic may appear, which will not bear the same bold treatment which has been recommended in this report; and I would again take the liberty of reminding those who scarcely draw any line of distinction between complicated fever and common inflammation, that there are modifying circumstances in fever which render the sys-

* "Medical Essays on Fever, Inflammation, &c., by Joseph Brown, M.D."

tem unable to withstand large losses of blood without great hazard. - - - - -

"In short, much judgment and discrimination are often required in the use of the lancet in fever, since, after it has advanced beyond a certain stage, the measures which, at a more early period, would have been proper, are not only inapplicable, but often positively injurious, if not fatal. When the indications for bloodletting in fever, to abate the violence of general excitement, or to subdue organic inflammation, have been fulfilled, or, in other words, when a decided impression on the general and local symptoms has been made by bloodletting, the system should be left pretty much to its own resources. We are not to bleed because the general symptoms of fever continue, but endeavour to guide the patient through the disease, carefully and minutely watching the recurrence of inflammation."

The several other modes of treatment, and the various remedies, are discussed in this chapter in an equally judicious manner; and the author's observations on the use and abuse of wine in this disease, are particularly valuable.

Cordially recommending Dr. Tweedie's "Illustrations" to the attention of our professional brethren, we turn to the "Memoirs" of M. Dance

Of these papers three have already appeared in the "Archives Gen. de Médecine;" the fourth and last will be published shortly. Taken as they stand at present, they are as sigular productions in their way as we have ever perused. The author starts with the inuendo that the recent fashion for strict pathological researches in this disease, is detrimental to the early acquisition of practical curative knowledge; that it is a tardy and a roundabout mode of arriving at the legitimate object of inquiry, and that the best means of acquiring this practical knowledge is by the empiric observance of the effects produced by the most opposite methods of treatment. In his third page M. Dance anticipates the conclusion of his researches, by announcing his impression that the best of all treatment is the "medico expectante hygeienique;" in other words, letting the malady work its own way; and he then proceeds to gallop over a multitude of cases, as Major Head did over the Pampas, scattering rough notes of observation and illustration as he goes, on the different groups of objects which he passes. One thing is especially worthy of notice, namely, that the cases are not affiliated on any particular physician or institution, nor are we afforded any data by which we may refer them to M. Dance himself. So much the better for M. Dance's reputation, for a more melancholy exhibition of absolute and pernicious quackery we have never examined; many of the cases are disgraceful to the practitioner by whom they were treated. In one paper we are presented with a series of examples of fever treated exclusively by tonics; in another, by venesections and other evacuations of blood; in a third, by purgatives and emetics, and to each class we find observations appended, reasoning on the success, or want of success, of a certain mode of treatment, and rejecting or adopting it, according to the evidence afforded by results. But the degree of faith which may be reposed on these conclusions may be readily estimated, when we see leeching and bleeding practised in the most advanced stages of low typhus fever, and bark administered when the abdomen is exquisitely tender to the touch.

We have been induced, on several accounts, to offer these cursory remarks on M. Dance's production. In the first place the periodical which contains them, stands in high repute amongst the "compilers" of our medical contemporaries, and this notice may be the means of cautioning the profession against attaching any faith to such official, authoritative, tabular statements of M. Dance's results, as may appear in an English dress, neatly arranged in rank-and-file order, very captivating to the eye, but calculated to mislead the judgment of those who are not prepared to suspect the true character of the documents. We have of late repeatedly noticed compilations of this kind; general results being extracted from foreign journals and put forward as guides for our practice, while the cases from which they have been deduced have been, either not at all, or, at most, very superficially examined.

Having published this caution, however, we may venture to recommend the Memoirs to the notice of the pathologist, on account of the abundant and admirable necrotomic observations which they contain; for though M. Dance boldly contends for the superiority of empiric clinical experiments, yet, to en-

force his positions, he advances pathological facts of much value, and with great anatomical precision.

The Edinburgh Medical and Surgical Journal, January, 1831.

We have already spoken in complimentary terms of the current number of the Edinburgh Journal, and we have made lengthened extracts from its first article on the state of medical science in Constantinople. We now proceed to an analysis of the remaining original papers, passing over a voluminous Essay on the Gibraltar Epidemic by Dr. Smith, which we reserve for future consideration.

Framboesia.—The third paper is by Mr. Mason, on frambæsia, or yaws, which disease he describes with great apparent fidelity; but as the subject is comparatively unimportant to the British practitioner, we shall pass it over with a superficial notice. A similar disease to the yaws, if the affections are not altogether identical, has been long prevalent in the south of Ireland, where it is termed the "button scurvy." Like the frambæsia, its diagnostic character is a pale-coloured, granular, compound tubercle, capable of propagating by inoculation; like yaws it runs a chronic and lingering course, and either induces or predisposes to various constitutional disorders, of which the aggravation of the scrofulous diathesis is of very frequent occurrence. We have, however, never heard of its affecting the soles of the feet in the manner of the *crab* yaw, though that it does do so we have little doubt. We are not aware of the existence of any description of the "button scurvy." Bateman contains no notice of it, Mr. Plumbe is equally silent on the subject, and we cannot find in Alibert's bombastic, though accurate volumes, any description of such disease as being endemic in France. We would, therefore, call the attention of our Irish readers to the disease. The infirmaries of Clare, Cork, and Limerick, afford abundant opportunities for investigating it in all its stages. We shall be much disappointed if no further information be elicited by this intimation.

We cannot leave Mr. Mason's paper without transferring to our pages the following extraordinary statement respecting the Anti-ebullition properties of African legs.

"An African practice, however, still in use among the ignorant negro empirics, ought not to pass unnoticed. It is always attended with danger, and in some instances within my own knowledge has proved fatal. It consists in immersing the feet in a medicated hot-bath, composed of a watery decoction of various herbs, and which, by means of a slow fire, is kept constantly near the boiling temperature. In this state the patient's feet, closely wrapt round with woollen cloth, are retained in it for the period of nine days with barbarous perseverance, often in spite of the cries and supplications of some of the more sensitive sufferers, while others undergo the process with callous indifference. There are instances, as I observed above, of the former class of unfortunate individuals who have expired on the spot. The effects of this dangerous practice on the local affection tend to remove the hardened skin from the soles of the feet, and with it most probably the crab yaw tubercles; but of the permanency of the cure I am not sufficiently informed."

Now, we should, perhaps, believe every word here quoted, did we not recollect that Mrs. Glass cooks a leg of mutton thoroughly in three hours; the nine days' decoction just spoken of would convert any animal tissue, living or dead, into perfect *bouilli*.

Quack Medicines.—The next article is by Dr. Hancock, on the Mal d'Estomac, or Cachesia Africana. The paper, notwithstanding its obsolete and disagreeable phraseology,* may be read with some advantage in the West Indies, but in this country it is only interesting for the following valuable note, with the observations in which, from repeated experiments, we entirely coincide:—

"Certain empirical remedies are occasionally found to have great efficacy, and deserve more attention than has yet been bestowed in discovering the nature of their pharmaceutical composition. Dr. Paris has justly observed, that they not unfrequently afford instances of some of our best compounds, whilst the modern mania, for simplicity in prescribing, has robbed us of many of the more efficient remedies formerly in use as officinals. Some twenty years ago a

* On which account, as it was very long, we were induced to decline, several months since, the publication of Dr. Hancock's paper in this journal; and while mentioning this circumstance, we take the opportunity of stating, that within the last year, there have been published twenty worthless papers in the pages of a certain characterless and venal periodical, which had previously been rejected by The Lancet.

certain nostrum was used in the colonies, and with great success, in *Mal d' Estomac*, as reported by certain practitioners. It was sent home to some eminent chemist for analysis, and reported to contain *arsenic*. This was not improbable, although I have learnt to place but little confidence in the pretended examination of quack remedies. We see in several late works a display, or professed disclosure, of such secrets, and in which the components are mentioned without the least doubt as being indicated by chemical analysis. The reports we have hitherto seen published in some magazines, and repeated in the Pharmacologia of Dr. Paris, Rennie's and Gray's Supplements, &c., are little worthy of regard; they have for the most part been got up merely under a show of science. The old nostrum, for instance, called 'Spilsbury's Drops,' is said, in these reports, to contain two drachms of corrosive sublimate to a pint of the menstruum; but several samples I have examined showed no traces of this mineral. One of these I bought expressly for examination from the proprietors in Soho Square, but the sense of taste alone would show this absurdity. * * * * * With respect to such false reports, some will exclaim, 'It is right to put people on their guard against quack medicines.' Now, it has no such effect, but is liable to produce the most fatal results. Gentlemen who give publicity to such mistatements are not aware they are entailing much greater evils on society than could arise from all the quackery which they are desirous to defeat. They should consider that the more saleable nostrums are prepared by many other persons besides the proprietors, and that the prescriptions thus published will be followed by numerous imitators. Let us suppose, then, that a person who has been in the habit of taking large doses of *Spilsbury's Drops*, gets a bottle of that prepared with 3ij of sublimate to a pint of menstruum, and takes his usual dose, the result, it is plain, might prove fatal."

Some of the changes produced in the coats of the Eye by inflammation.—The 5th Article is one of much practical value and pathological interest. The author, Mr. Watson, sets out by observing, that the investigation of the morbid changes of structure in the eye has not yet received much elucidation from the labours of the morbid anatomist, an assertion in which he is borne out by the testimony of all eminent writers on the subject, and which is accounted for by the rarity of a fatal termination from diseases of the eye. Mr. Watson then proceeds to describe the changes effected by inflammation in the various tunics. The annexed observations on the inflammation of the sclerotica are well worth attention:—

"*Sclerotica.*—Two changes of structure of an opposite nature take place in the sclerotic coat from inflammation: the one consisting of an increased thickening of the coat, the other of a diminution of its natural thickness or thinning of it. The *former* of these takes place in those cases where this coat is alone the seat of inflammation, or partakes of the inflammation affecting other parts of the eye. The *latter* appears to take place in cases where the other coats of the eye are chiefly affected. Increased thickness of the sclerotica from interatitial deposition is probably of common occurrence in aggravated cases of ophthalmia, though it has been rarely observed, owing to its not giving rise to any peculiar morbid phenomena, and opportunities for dissection rarely occurring. Diminished thickness, or interstitial absortion of the sclerotica, gives rise to an appearance known by the name staphyloma of this coat. Staphyloma sclerotica consists of a part of this coat projecting beyond the rest, and having a bluish colour, which is dark in proportion to the thinness of the part. This blue colour arises from the choroid coat being seen through the semitransparent conjunctiva and sclerotica. It seems to me probable, that the thinning and yielding of the sclerotic coat take place in consequence of increased pressure from morbid accumulation of fluids within the eyeball, upon an inflamed portion of this coat. It occurs most frequently near to the cornea, where the coat is thinnest, and where it is most apt to become inflamed, from its proximity to the iris and ciliary ligament. In most of the cases in which I have seen this affection, the eyes may be said to have been dropsical; and in none of them had an opening been previously formed in the cornea or other parts, by which any of the humours could have been evacuated. In some cases the cellular tissue of the hyaloid membrane, containing the vitreous humour, has become disorganised and absorbed, leaving the eyeball filled with limpid fluid, and the lens floating loose amongst it. In others, a morbid accumulation of fluid has taken place between the retina and choroid coat."

Speaking of inflammations of the iris, the author contends, that simple iritis is extremely rare, but that in a vast majority of cases the choroid coat is also affected. In some rare cases, Mr. Watson has noticed the growth of a red fungous-looking substance from the surface of the iris, an ap-

pearance which occasionally induces the inexperienced to apprehend malignant incurable disease of that organ, when a few soothing remedies would remove the affection. Two cases of mixed iritis and choroiditis are related, which tend to show that effusion not unfrequently takes place in the retina-choroid cavity. For the cure of this the author recommends puncturing the sclerotic and choroid coats by means of a grooved needle. In one of these cases Mr. Watson records the curious fact, that cholesterine was found in the vitreous humour.

Follicular Origin of some Vaginal Tumours.—Some brief but important observations on this subject, by Mr. G. O. Heming, follow. In two cases which he examined after death, he thus describes the peculiar appearances to which he calls the attention of the profession:—

"Sir Astley Cooper has, in a very interesting paper, shown that some encysted tumours consist in enlargement of cutaneous follicles; and in the course of his work upon hernia, that gentleman has described a similar tumour originating in enlargement of a mucous follicle, situated just below the *meatus urinarius* in women.

"It has not, I believe, been hitherto conjectured, that some of those tumours which are known occasionally to occupy the pelvis and obstruct parturition have a similar origin. This fact appears, however, to be distinctly established by cases which have fallen under my observation; and it is the more important, because it immediately suggests the propriety and safety of the treatment by free incision.

"I have carefully examined the bodies of two women, in whom I found tumours of this description projecting into the vagina; in one there were two of these tumours, in the other there was a single one as large as an egg. On a minute examination of their internal structure, it was evident that they consisted of obstructed lacunæ, which had thereby become dilated into a cyst, and distended by a gelatinous fluid. I was enabled to trace distinctly in the smallest tumour a continuation of the mucous membrane of the vagina into the tumour, and a reflection of this membrane forming the lining to the latter. I can have no doubt that the tumour in Mrs. Hollingsworth, the particulars of which I am about to detail, was of the same nature. Mr. Vincent, as well as myself, was convinced of this fact; and it is probable that the greater number of those tumours which obstruct parturition, and which have been described by the authors who have written on this subject, were of similar origin. If this be the case, I think no one would doubt that when they existed in labour, so as to obstruct the descent of the child, the best practice is to evacuate, and thereby diminish them by a *very free opening*."

In the case alluded to, Mr. Heming dissected out the tumour. The operation was attended with very considerable hæmorrhage, but this was stopped by plugging the vagina with lint, and in three weeks the patient was quite well. We should remark she was not pregnant. Mr. Heming correctly attaches much importance to a just diagnosis, and this he considers may be certainly established by tracing the origin of the tumour, and taking into consideration the circumstances of the case. Thus, in the instance he describes, "it could not be prolapsus, for the neck of the uterus could be felt above the tumour in its natural situation, and the same circumstance, together with the absence of the symptoms of pregnancy, proved that it could not be retroversion of the uterus."

Operation for Restoring the Columna Nasi.—Mr. Liston describes the operation in these words:—

"The patient's head being held backwards, the under surface of the point of the nose is pared, so as to present a raw and concave surface; a bistoury is then twice passed through the upper lip, close to the root of the original columna, and each time carried forwards to the mouth in a straight direction, and with little sawing motion, so as to include a slip about a quarter of an inch in breadth. This slip, composed of skin, mucous membrane, and the interposed tissues, is then deprived of its prolabium, and elevated without twisting, so that its oral margin is placed in contact with the raw surface on the tip of the nose; and in this position it is retained by a point of convoluted suture, a pin being passed obliquely through the point of the nose and the upper part of the new columna. The raw edges in the wound of the lip are brought into accurate apposition by two points of twisted suture, as the operation for harelip."

Mr. Liston operated in this manner in five cases with complete success. He insists particularly on the circumstance, that the slip removed from the lip should not be twisted at its attachment, but that it should be simply raised, as if on a hinge, the mucous membrane remaining external. In a few weeks, he states, this membrane be-

comes assimilated to the cutaneous texture, and no inconvenience is sustained by the growth of the beard internally, as the hairs from moisture and want of cropping soon lose their rigid character, and entirely resemble the hair peculiar to that situation. In a case in which Dupuytren lately operated without success, Mr. Liston considers the principal cause of failure to have been the twisting of the fleshy attachment to the upper lip. He also shows satisfactorily that the loss of part of the lip *in these cases* does not cause, but rather remedies, a deformity, inasmuch as from wanting the support of the columna nasi, the lip hangs down in the manner seen in scrofulous persons.

On the mutual Action of Blood and Atmospheric Air.—We now arrive at the essay on this subject by Dr. Christison, being the first of an intended series of inquiries on some disputed points in the chemical physiology of the blood and respiration. This article is fraught with interesting matter, and we accordingly subjoin an ample abstract of its most important parts.

Dr. Christison declares his object in this part of his inquiry to be, to ascertain "what changes really take place, and whether the arterialization of the blood in the lungs is a vital or a physical process," observing that from the well-known phenomena of respiration, as far as it concerns the colour of the blood, and the effect on the inhaled air, it has been generally considered to be dependent on physical rather than on vital causes. Very lately, however, Dr. John Davy has, from experimental researches, been induced to contradict this opinion, and to state that air and recently-drawn blood have no mutual action whatever, that the colour of blood is not changed, that no oxygen disappears from the air, and that no carbonic acid is formed in it. Dr. Davy also asserts that the eminent chemists and physiologists who brought forward these doctrines, fell into the error by using blood in a state of incipient putrefaction.

On Dr. Davy's statements our author makes the following remarks:—

"I shall first consider the question as to the change the blood undergoes in colour by being placed in contact with air, and then the question as to the change the air undergoes in its turn. The effect of agitation with air in changing the colour of blood has always appeared to me obvious and unequivocal. Dr. Davy says the change is more apparent than real, is produced by the blood being converted for a time by the agitation into bloody froth, and gives place after repose to the original dull purple colour peculiar to venous blood. I have not been able to observe what is here mentioned, provided the blood used was fresh and not decayed. The purple venous blood always became by agitation with air brightly crimson, and remained so for more than a day, sometimes for four days; and the difference in tint was so great that no one could mistake the two varieties of blood at the distance even of five-and-twenty or thirty feet. Dr. Davy adds, that agitation in hydrogen gas had the same effect on venous blood as agitation in atmospheric air. But in this respect also my experiments differ from his. When I agitated venous blood in hydrogen, which had previously been entirely freed from oxygen by a ball of spongy platinum, no change whatever could be remarked in the colour; and when the same blood was then agitated in atmospheric air, it became bright crimson as usual. In all the experiments I have been mentioning, the blood was drawn not more than three hours, and sometimes only one hour, before it was used. There appears to me, therefore, no reason for doubting that venous blood acquires the colour peculiar to arterial blood, after being agitated with air out of the body."

On a former occasion we ventured to speak slightingly of some of Dr. Davy's *chemical* researches, and we should not be surprised if Dr. Christison has now put an "extinguisher" on his investigations. At least the public will not for the future sacrifice so much to a name as they have hitherto done, but, like Dr. Christison, will perhaps experiment for themselves, before they subscribe to any opinion no matter how authoritatively it may be set forth.

Dr. Christison next examines into the correctness of Dr. Davy's assertion, that "the colour of the blood is not changed, that no oxygen disappears from the air, and that no carbonic acid is formed in it." Of his results he speaks in these terms:—

"I am sorry, however, that my experiments on these points compel me again to differ from so eminent and accurate a chemist. I have tried the effect of agitating venous blood in air no less than thirteen times, in expectation of meeting with some fact which might reconcile my previous observations with those of Dr. Davy, but I have not been able to remark in a single instance that want of action on the air which

he believes he has established. I shall describe the experiments here alluded to in detail. For they seem to afford more precise information than any hitherto possessed respecting the arterialization of the blood out of the body; they prove completely that the process of arterialization, so far as regards the changes which the blood undergoes in colour, and the air in composition, is a chemical and not a vital phenomenon; and they will contribute afterwards to explain some doubtful points in the physiology of the blood, which it is otherwise extremely difficult to comprehend."

The experiments alluded to are perfectly satisfactory.

On the important question of the absorption of nitrogen by the blood, the author speaks as follows:—

"The quantity of azote in the residual air appeared in general to be exactly the same as that in the air originally. In three experiments the azote in the residual air and that in the original air were as follows:—

1st, 10.10 cubic inches 10.12
2d, 10.26.....do..... 10.27
3d, 10.33.....do..... 10.35

Here then certainly no azote was absorbed or given off by the blood. In two experiments, however, a very small quantity appeared to be given off by the blood. But of this I am by no means satisfied, as the present method of experimenting is on too small a scale to justify any safe conclusion regarding such small differences as I obtained."

On this subject M. Collard de Martigny has recently made some interesting experiments; he found in four trials with 244 cubic inches of air, that azote was exhaled to the amount of 1-9, 1-8, 1-6, 0-1, cubic inch; in an equal number of experiments with 213 cubic inches, the quantity evolved was 4-1, 3-6, 1-8, and 1-3 cubic inches; and lastly, in a single trial with 183 cubic inches, the quantity was four cubic inches. Notwithstanding these experiments, we would still incline to Dr. Edwards's opinion, that the absorption or evolution of nitrogen depends chiefly on the age of the animal, the climate, and the season of the year.

Dr. Christison next advances some important facts and speculations concerning the different rates of absorption of oxygen by venous blood, which he has noticed to take place,—differences which he considers, and proves to be, too great to be dependent on the degree of exposure of the blood while issuing from the vein.

"The first cause of this different degree of absorption of oxygen, is a difference in the degree of venosity or venalization of the blood in passing through the capillaries. That such a difference exists, is partly indicated by varieties in the colour of venous blood, which no medical man can have failed to remark. The usual colour of venous blood while issuing from a vein is dark purple; but in many febrile diseases, where the circulation is much excited, and especially in severe cases of acute rheumatism, its colour is unusually florid; and I have several times seen it issue of so bright a tint, that the operator was for an instant afraid he had opened an artery. This peculiar state of the venous blood will be naturally ascribed to the arterial blood having been less venalised in passing through the capillary circulation. - - - Accordingly, the least alteration of oxygen invariably occurs in those febrile diseases where the circulation is much excited, and the respiration at the same time free. These conditions exist most especially in acute rheumatism; and it was therefore in cases of this disease that the instances of slight action formerly mentioned have occurred. On all these occasions the blood was evidently more florid than usual, and in the instance where the loss of oxygen was only 0.57 of a cubic inch, the stream from the vein was so bright, that the gentleman who opened it had at first some suspicion that he had opened the artery."

Another material cause of different absorption, Dr. Christison considers to be "a difference in the proportion of colouring matter in the blood:—

"Every physiologist is aware that the proportion of solid matter contained in the blood, and consequently the proportion of its colouring matter, differ much in different circumstances. This is a subject, however, upon which very little precise information has been collected, and very few experimental inquiries have been made. It is therefore one of the topics which it is my purpose in the present series of investigations to endeavour to elucidate, by establishing what are the conditions of the body in which the colouring matter and other principles of the blood abound or are defective, and what relations their abundance or deficiency bears to diseases and their progress. My experiments in this department of inquiry are still too few in number to admit of being mentioned particularly. But I may anticipate the results which will be stated on a future occasion, by observing, that a very great difference does really exist in the proportion of solid ingredients, or in what may be termed the richness of the blood, and that its colouring matter appears to be peculiarly deficient in the advanced stages of fever, and in some forms of dropsy."

A case of dropsy is then described, in which this deficiency of colouring matter was found to exist, and in which the absorption of oxygen was proportionately minute. The author then concludes his paper by charitably offering some excuses for Dr. Davy's "failure," which he attributes to the small quantities of blood and large volumes of air on which that gentleman made his experiments. We leave them to arrange those compliments between them, and conclude our notice of Dr. Christison's paper, by expressing our hope that he will not long withhold the continuation of his researches.

Venereal Diseases.—The 11th article by Dr. Donnelly, surgeon of the Hussar frigate, on the treatment of the venereal disease, presents an elaborate series of facts respecting that disease, collected during his service on board the Hussar and the Sparrow-hawk, and during his superintendence of the Bermuda and Halifax naval hospitals. The sum of his observations he presents chiefly in the tabular form, which, of course, precludes any attempt at analysis on our parts. His therapeutic conclusions, however, are briefly told, and possess much practical value.

"If, then, the data I have furnished are considered sufficient to warrant any deduction, I can only conclude, that, as far as shortening the time of cure is important, the advantage is much in favour of the non-mercurial treatment, which is at least gratuitous, where sores heal without its aid, whilst the inconvenience to the patient and service is infinitely less. With regard to secondary symptoms, I am inclined to think that five out of eighty-one is a smaller proportion than would have followed full mercurial courses in them all, or perhaps would succeed to such a liberal use of mercury in any equal number of persons, as happened to some of the secondary cases of the Hussar and Sparrow-hawk. As in all the others, from eighteen months to two years have on an average elapsed since their cure, I see little reason to apprehend the development of any sequelæ, considering also, that in the five cases in which secondary symptoms have occurred, the average time subsequent to the primary disease was only four months and a half."

Filaria Medinensis.—The last article consists of extracts from a correspondence on the *filaria medinensis* between some of the medical officers in the honourable East India Company's service at Bombay, and a letter from Dr. R. Grant, professor of comparative anatomy in the University of London. The nature of the correspondence may be expressed in a few words. In order to amuse themselves while under the influence of the dog-star, the East India officers debated the question, whether the substance protruded in cases of dracuncle is an individual animal, or a dead portion of lymphatic vessels. Party raged so high on this vital affair, that a box containing specimens was sent to Edinburgh for investigation, with copies of all the arguments *pro* and *con*. The matter has been referred to Dr. Grant, who has ascertained the substance to be a living *filaria medinensis*.

ST. THOMAS'S HOSPITAL.

CLINICAL LECTURE

DELIVERED BY

Dr. ELLIOTSON,

Feb. 7, 1831.

CANCER OF THE WOMB.

I have to show you, Gentlemen, this morning, a horrid specimen of *cancer* of the womb. [Here the lecturer exhibited the womb and adjacent parts in a dreadfully diseased state.] You observe here the uterus. The body of the womb you observe is very little enlarged, but exceedingly hardened, quite of scirrhous hardness, and the neck is nearly consumed by ulceration; the os uteri is perfectly destroyed. The induration is greatest at that part which is nearest the ulcerated portion; and as you ascend towards the fundus, the induration is less, till at last the structure is comparatively healthy, but still, more compact than it ought to be. This is the urinary bladder, which has been cut into. The disease had not ulcerated into that organ, nor into the rectum. Here is the bladder: and here the rectum, which also, you observe, is entire, excepting at one minute part, where the coats are exceedingly thin, and there is now a small aperture; but I rather think this has been made after death, in withdrawing the parts from the pelvis. You see that on the other side the ulceration has penetrated so as to thin the parts very much, but whether the aperture took place during life or not, I will not pretend to say. However, if the

patient had lived a week longer, there certainly would have been an aperture into the rectum. The bladder appears thickened, but there is no ulceration of it. The vagina is more or less implicated. The discharge was of the most fetid description; it was hardly supportable to those standing near the woman, when the bed-clothes were turned up. This case follows the general law of those parts of cavities which are nearest to their opening, being the most liable to disease. The larynx is particularly liable to disease; the cardia, the pylorus, the ileum just where it enters the cœcum, and again the rectum, are all far more liable to structural disease than any other parts of the alimentary canal. With respect to the uterus, you see here that the fundus is comparatively healthy; the nearer you approach the neck, and, still more, the nearer you approach the situation of the os uteri, the greater is the havoc. This is the front of the uterus; here is the vagina.

You observe that, externally, adhesions have taken place. The fallopian tubes are adherent to the uterus in about half their length, and all the surrounding parts are more or less in a state of adhesion to that organ similar to what is observed in phthisis. Whenever there is a large collection of tubercular substance deposited in the substance of the lung near the surface, the corresponding spot of the surface is almost always found adherent to the costal pleura. Nature's view in this, as a general rule, is, clearly, to prevent mischief as much as possible. As ulceration goes on within, the adhesions without, prevent the ulceration of the organ from coming into connexion, and forming a communication with, the cavity of the serous membrane, be it the cavity of the peritoneum, of the pleura, or whatever else.

I shall now cut into the fallopian tube of the left side, and you will see that it is labouring under the same scirrhous affection precisely as the womb itself. Here is the fallopian tube opened, and you observe scirrhous deposit even here. It is all thickened together, in a state of great induration and some enlargement. Here are two patches of circumscribed hardness, which are beginning to soften in their centre. This is a very good specimen of the course of scirrhus. Scirrhus, hard as it may be at first, after a time softens down; when softened, the substance is sometimes called *encephaloid* substance. It is said by some to soften down into an encephaloid mass. But that is inaccurate. There is no appearance of that brain-like matter which you see in the particular disease called encephaloid affection.

There is frequently, in these cases, a deposit of *black* matter—a degree of *melanosis*; and here, accordingly, is a collection of black matter; it is rather extensive, and quite black. You sometimes find, in various parts of the body, scirrhus, encephaloid, melanosis. The last is now generally considered to be an *innocent* disease; to do no harm, except as far as the bulk of the black deposit may produce mechanical inconvenience; but though of itself it is not malignant, it, like others in themselves malignant, may be united with malignant diseases.

Here is a large encysted tumour filled with fluid, or a large collection of fluid, at the side of the womb, giving an appearance of what was formerly called an hydatid, though the term hydatid should be restricted to those formations which consist of vesicular animals, and should not be applied to mere encysted tumours. The one looks exactly like what is called a *wind* egg, an egg without a shell—merely membranes without any calcareous deposit. Here is another scirrhous tumour excessively hard, indurated like cartilage. All around by the side of the womb you see that the more external part of the section is of a light-grey colour, while the more central is of a yellow colour, and between the two you observe it is red—of an excessively vascular appearance. This is a very beautiful appearance of disease. The tumour which I have now shown you might be taken for an ovary, but I never saw an ovary, when cut into, present that appearance. *Here* is the ovary itself at the exterior of the fallopian tube, which I have cut open, and it is in a state of ulceration. You observe something like the granular vesicular character which we see in ovaries. It is undoubtedly that organ, but adherent to the neighbouring parts. The fallopian tubes, the uterus, and the ovaries, are all grown together. It is very common to find in the ovaries a black mass such as you see here.

On the other side of the womb you notice, corresponding to the part I have shown you, another mass of scirrhus, which is white without, but within the whitened part it is excessively red, and there is also a dark colour in some parts. It is in the progress of softening-down towards the centre, but is still tough. At the moment of cutting into it, it was excessively offensive. This mass, I presume, is merely a very great deposit in the left side of the womb, projecting and forming a globe. There is a great part of the cavity of the womb left, but you notice a substance excessively hard at one spot, forming a tubercle.

You observe that the uterus is not much increased in size, but it has become very irregular; that is to say, it has bosses here and there, according to the degree of change or new deposit; it has become irregular in shape in various parts. This specimen

illustrates also the fact, that when organic disease advances, it is not confined to one structure. Here is the mucous membrane in a state of rapid ulceration, and here is the substance of the womb itself, and here the peritoneum in a state of considerable hypertrophy, in a scirrhous state; in fact, this which is external is the peritoneum fallen into a state of great hypertrophy, enlargement, and induration.

From the obstruction that takes place at the termination of the ureters in the bladder, you will very frequently find the pelvis of the kidney enlarged, and very frequently even the infundibula too. You remark that one of these kidneys has a large cavity formed in it, and this is solely by the accumulation of the urine. Here is the pelvis of the kidney not much enlarged, but here is one of the infundibula of very great size. Frequently, as the termination of the ureters in the bladder becomes diseased,—becomes scirrhous, and the peritoneum and cellular membrane all around are indurated, the urine does not readily enter the bladder. The consequence is, an accumulation of urine all the way up the ureters, in the pelves and infundibula, so that the whole kidney is sometimes almost reduced to a bag. The other kidney I will now open. You perceive that its pelvis is larger than that of the other, and the infundibula also are dilated. This kidney would soon have become a complete bag, instead of being a pretty solid organ, as it is naturally.

In scirrhus, I believe there is in general both a *transformation* and a *new formation*. I believe that the structures are changed into other structures, and that a new kind of substance is deposited among them. In this disease, parts which are naturally soft become cartilaginous, particularly the cellular membrane. There is a transformation to a sort of cartilaginous substance; but besides that, a new substance appears to be deposited within the fibres of this cartilaginous mass. In general this disease is not very distinctly circumscribed. You see here that the disease runs imperceptibly into all the surrounding parts. The cellular membrane around the uterus is more or less in an indurated state, and the surrounding parts are all grown together.

Scirrhus is generally at first of a light-grey colour, and semi-transparent if cut into thin slices. I have now cut a thin slice of it and you perceive its translucency. You may consider the exterior of this specimen as exemplifying what scirrhus is, in colour at the beginning a little greyish, and, when cut thin, rather transparent.

You will observe in scirrhus two parts, a fibrous, and a softer inorganic substance; but the fibrous structure forms the chief part. In this part of the womb which has not become ulcerated, you observe this fibrous structure, and really it here to the eye cuts like a turnip. The part I now point out, is in the first stage of the disease, and here is another which is becoming very scirrhous, where the hard white fibres are more numerous and bulky, and the fibrous substance, as I just said, is the chief part. Here you observe a number of the fibres running in various directions forming septa. These are opaque, and whiter than the rest of the substance. The septa thus produced occasion it to cut like a turnip, and run in all directions, now and then forming cells.

The proportion of the fibrous structure to that which is deposited within the septa formed by it, is very various in different instances; and according to its distribution and proportion you have the various appearances of these scirrhous tumours; some look like the breast, and are called mammary; some like the pancreas, and are called pancreatic; some like tubercles—not scrofulous tubercles, but granules and tubera, and then they are called, though with some confusion of terms, tubercular. After a time, the less hard substance deposited within the septa, between the fibres, softens down into something like jelly, sometimes like syrup or gum; and this change is always first observed in the centre, which originally was the hardest part. When the parts ulcerate, then the disease is called *cancer*. Suppuration of the surrounding cellular membrane takes place; the edges of the ulcerated part are everted and elevated, and sometimes hard cauliflower excrescences grow from the centre of the ulceration, and as this extends very deep, great irritation of the constitution takes place, and an intolerably fœtid discharge; sloughing occurs, and the neighbouring lymphatic glands generally become contaminated. Here is a mass of glands taken off the spine. You see that they are enlarged, are almost scirrhous. If the patient had lived, these glands would have gone through the same process as the uterus itself, softening down and ulcerating.

This particular disease generally attacks parts originally which are not necessary to life, and especially parts the functions of which have been interrupted, or have never been performed, or parts that have been injured. It attacks the breast, the uterus, the ovaries, the testes, and the thyroid gland chiefly. The four first of these are parts which are not necessary to life, but are possessed by individuals for the sake of another race to succeed them. Life would go on just as well without them, as healthily, though not, you will perhaps say, so merrily and so happily. (*Laughter.*) However, other parts, which are for the individual himself and some of which are important to life, become affected secondarily, the liver, the lungs, the

spleen, if one can say it is necessary to life—the pancreas, if it too is necessary to life; the brain and its membranes, the omentum, the mesentery, the medullary membrane of the bones, and even the skin; that is to say, although parts which are decidedly not necessary to life, or so much for the individual himself, are those oftenest originally affected, yet the disease will spread to other parts intended for the individual himself, and even to parts most important to the system.

You are perhaps aware that it affects the bones; that persons who have cancer have sometimes their bones softened, friable, and broken. Women who have had cancerous breasts have broken their legs in bed, and on inspecting the parts, a bloody mass has been found in the medullary cavity and the cancelli, and the surrounding parts all blended together, the muscles blended with the bone and cartilages, and a morbid mass produced, in which spicula of bone are occasionally found. You will find cases of this kind mentioned by Mr. Salter, a surgeon, in the 15th volume of the Med. Chirur. Trans. There are specimens of this sort in the Museum of this hospital which I ought to have ordered in, but it escaped my recollection before lecture that we had any.

This disease is generally attended with great pain, pain of a sharp stabbing character. It seldom occurs before the middle period of life. It must be a very extraordinary thing to see it in a child. Now and then I certainly have seen it in young persons, but as a *general* rule it does not occur before the middle period of life, and then it will sometimes remain inert for many years. In other persons, however, it soon augments and softens, and irritation, suppuration, ulceration, and sloughing, take place. Besides its remaining occasionally inert for many years, nature will sometimes effect a cure; the diseased part will completely slough out, be turned out, and the individual get well; but this is a rare occurrence.

When the irritation has become very great, the patient in this, as in other malignant diseases, acquires a particular straw-coloured hue, and this state of the body has been called the *cancerous cachexia*. It is not the paleness you see in cases of excessive loss of blood or enlarged spleen, but it is a particular straw-colour look; it is not like the appearance in ague, that is a dirty straw-colour; it is a clear straw-colour, a pale sallow hue, a sallowness which is very characteristic, and which is considered as indicative of cancerous or malignant cachexia.

Now the patient from whom this mass of disease was taken, was admitted into the hospital about two months before her death. Her name was A. M——, she was 47 years of age, and had had the complaint two years. She said she had laboured under excessive menorrhagia during the whole of this time, till the last four weeks, since which a green water only had come away; but till the last four weeks she had had excessive and constant discharge of a bloody fluid. She also complained of strangury, continually desiring to make water, and voiding it with very great pain. She always had a bearing down forwards, and it would have been extraordinary if she had not, when you consider the proximity of the bladder to the parts affected. The pain which she experienced was constant and severe—in the hypogastric region, in the region of the womb, and likewise across the upper part of the thighs. There is almost always an extension of the pain to the hips, and frequently down the thighs. In the uterus there was not only a constant sharp pain, but a throbbing and pricking; and she said that in every respect her sufferings were like those of labour, only that she had little pain in her loins. I heard from her, that at the time of her admission she had a discharge of clear water from the uterus, particularly in the morning; and that during the menorrhagia she had always felt pain in the left breast, shooting down to the pelvis, and showing the sympathy between the two organs. I need not say that, having been ill for two years, she was excessively weak, and confined to her bed. She never got out of it here I believe, at least I never saw her out of it after her admission. She had œdema of the legs, and, after death, œdema of the hands was observed. On examination per vaginam as soon as she came in, I found the neck of the uterus excessively hard, as hard as any cartilage, and immovable. It was impossible to make the least impression on the substance with the fingers, or produce the least movement. There was one hard solid mass stuck in the pelvis. You see now that that must have been the case from the extreme adhesions of the organ to all the surrounding parts, and on looking into the pelvis, at the autopsy, the solidification had extended on each side of the uterus and broad ligaments, so that there was one solid mass in the centre of the pelvis, joined to the parts immediately adherent to the bones. The os uteri was very irregular. At the examination I made during life, ulceration had begun, and on withdrawing my fingers, I found them covered with blood. This is what is commonly found in the advanced stage of scirrhus of the womb—the os uteri rugged, the neck of the womb excessively hard, and on withdrawing your fingers, they prove bloody. The examination gave her great pain, whenever the os uteri was touched.

This case was perfectly incurable. The patient was at the period of life I have already mentioned, namely, 47. She illustrated the age at which cancerous affections usually take place; and she illustrated the other fact I have already alluded to,—that the disease most frequently occurs in parts that are not necessary to life, and which have done their office in the economy. She had been ill two years, and was 47 years of age, and 45 is about the time at which women in this country cease to menstruate, and ought, one would think, to give over employing their generative organs (!!) However, she did not illustrate another fact; that is to say, she had had plenty of children; and therefore did not illustrate the fact, that parts indisposed to perform their functions are the most liable to the disease. Certainly the disease occurs more frequently in women not married, or if married, in those who have had no children; but still the organ in this case had become inert, had furnished its share of function, when it fell into disease. I understand too, though I do not know that that had any-thing to do with it (at the same time it might be well if all women thought it had), that she was a great *gin*-drinker—never drunk, but always bibbing.

It was impossible to think of curing the disease, or even of lessening it; and as to the extirpation of the uterus, there was such a solid mass fixed in the pelvis, that extirpation would have been impossible. If extirpation had been possible and resorted to, you see some portion of the disease must have been left; for all the surrounding parts were in a state of scirrhus, as well as the womb itself; the fallopian tubes, ovaries, and the broad ligaments, were all scirrhous together. She was admitted on the 2nd of December, gradually sunk, and died on the 31st of January.

Although, however, no good could be done in the way of curing the disease, she was made exceedingly comfortable, and spent the time she passed in the hospital in the greatest degree of tranquillity. I gave her immediately *two grains of opium* every night, and that entirely lulled the pain, so that from having suffered dreadfully—having been sleepless generally every night, and writhing in agony, she passed her nights with very great comfort, and lay without complaining all the time she was here. I allowed her a pint of porter daily, and the house diet. When the opium appeared to begin rather to lose its effects, at the end of three weeks I allowed her three grains every night, and that proved quite sufficient; she never took more. I understood that her bowels were regularly open, and whenever I asked her how she was, she always replied, "Very comfortable indeed." It is certainly a great satisfaction that when you cannot save life, you still can mitigate suffering, and I do not know whether it is not upon the whole more important, a greater blessing, to make life happy while it lasts, and to remove suffering, than to save life. She was brought into a state of comparative freedom from pain, and certainly one of the greatest delights is freedom from pain after suffering severely. She sank very gradually and died free from pain. One of the great ends of our profession is to effect an *euθανασια*.

With respect to the power of opium, I may mention that Sydenham used opium abundantly, perhaps too abundantly, not only to relieve suffering in many cases, but as a curative means: and he had so high an opinion of it, that he used to say it was one of the greatest blessings bestowed upon us, and that without it medicine would be almost nothing. *Sine illo manca sit ac claudicet medicina*, I think are his expressions. I would remark that common opium with me answers all purposes so well that I very rarely think of giving acetate of morphine, black-drop, and other peculiar preparations of it. I have used them all, and I will not deny that now and then a patient may be so peculiar as to have one of them agree with him better than common opium. But I am certain that this is not so very common a thing, and there is a great deal of fancy and caprice and habit among those who employ such preparations, some actually fall into such a habit as always to prescribe one of them. I can only say that in my practice common opium almost always answers every purpose that I see answered by them; and it would be well if all our medicines were of as uniform a strength as common opium and its tincture.

With respect to the fœtor of the discharge, this poor woman employed a solution of the *chloride of lime* to the vagina. This, or some other chloride, is an article that ought never to be omitted, I think, when there is a discharge of an offensive nature from a patient. If applied assiduously and constantly, it takes away the smell entirely; and I generally direct it to be applied not only to the source of the discharge, and to the discharge itself, but to be sprinkled around the bed of the patient, so as to destroy as much as possible the fœtor altogether. I do not think that the chlorides are yet by any means employed to the extent they deserve. If they were used in dissecting-rooms, and where any contagion or any effluvium, vegetable or animal, exists, I am satisfied that much disease would be prevented—innumerable cases of disease that arise solely from one emanation or another. The destruction of offensive smells is comparatively a trifle, important as it is, and some

think the smell of the chlorides so disagreeable, that they like it as little as an original stench. But we should remember that chloride is innocent, while the emanation that stinks is generally deleterious. You cannot do better than read the translation of Labarraque's work on the chlorides by my friend Mr. Alcock, who has added facts to those of the work itself.

You might have imagined that the opium would cause constipation. Yet, though a small dose constipates when given occasionally, if people take it frequently and in large quantities, it has often no constipating power at all—I do not say always, but very often.

You are aware that the uterus is subject to another disease, called the *malignant ulcer* of the womb. This occurs, I believe, more particularly in the same circumstances as scirrhus and cancer of the womb. It begins, like scirrhus, in the neck, or, indeed, some say, in the os uteri itself; but the uterus is not indurated around, there is merely a dreadful ulceration. Frequently the patient complains of very little pain, and if you press upon the part you do not produce any agony, sometimes hardly any pain at all. When you examine a woman with scirrhus of the womb, you find extreme hardness, and that she complains of excruciating pain; but in malignant ulceration of the womb there is no induration, and if you press the parts, the patient merely complains of a little smarting. I believe there is no new deposit. It was known to Dr. William Hunter, and, consequently, you will find it well described by Dr. Baillie; yet it is singular that, though he speaks of scirrhus, he never speaks of *ulcerated* scirrhus of the womb, or open cancer of it, at least in the edition that I have. All he says is, that "ulceration is sometimes discovered upon the internal surface, but I believe it is generally wanting:" The omission is hardly to be accounted for. This is the view of what is called malignant ulceration of the womb by Dr. Baillie, and which was mentioned by Dr. William Hunter in his lectures. (*Showing the drawing.*) Here is the neck of the uterus. The body of the womb is not affected, but sometimes it is slightly enlarged. Both malignant ulcer and cancer may extend to the rectum and to the bladder. Sometimes the cavities are all thrown into one, and then the suffering is horrid.

You are also to remember, that the uterus is subject to a hard deposit; sometimes in large quantity, without any danger whatever. Tubercles are produced in the organ, sometimes in the substance, sometimes under the peritoneum, sometimes under the inner coat, and sometimes hanging into the uterus; at least Dr. Baillie said he once found a large mass of this texture within the uterus and scarcely attached. These are exceedingly hard, fibrous, and white. They consist of small collections of fibres heaped up into little balls, and you may distinguish them from one another. Sometimes the uterus is so enlarged with them, that it may be felt above the pubes, which is not the case in true scirrhus, and these do no harm whatever, except the inconvenience that may result from their size and pressure. I think some one says, who has made the subject a matter of inquiry, that in examining the bodies of about 100 women, from 45 and 50 years of age, deposits of this kind were found in no fewer than twenty. They remain inert during the rest of life, and produce injury only by their bulk, by compressing the neighbouring parts. These are called by Dr. Clarke the fleshy tubercle; but that, perhaps, is an improper expression, if fleshy means muscular.* Yet we must remember, that our established word sarcoma is derived from σαρξ, flesh, and that an abdominal *gland* is called pancreas from κρεας, flesh.

Besides this patient, gentlemen, no other has died since I had the pleasure of seeing you, but five have been presented: one case of *acute rheumatism*, which was rather obstinate, but yielded at last to perseverance in local bleeding and mercury; a case of continued *fever*, which yielded to the same treatment; and a case of

PALSY OF THE WRISTS FROM LEAD,

Which yielded exactly as the other case did about which I spoke, in the beginning of the season, as illustrating the great use of *electricity*. We have here a good many patients labouring under palsy of the wrists, on account of the white lead manufactories in the neighbourhood, and the number of painters in the metropolis, but particularly the former. You know that the parts affected drop, and the person cannot extend his hand, fingers, or thumb; and they are entirely useless, if it is severe. I have tried a great many things, and certainly nothing has answered so well internally as *strychnine*, and externally as *electricity*. The other man was cured rapidly by electricity; this man was cured also by electricity. The cure here was much too rapid for one to ascribe it to the patient's removal from his ordinary poisonous business, to the restorative powers of nature, or to any-thing but the electricity. The electricity was latterly given in sparks, but originally in shocks. As the man used to assist when others were electrified, one of his hands had a far greater share of electricity than the other, and was recovering much faster; for that, besides the shocks it received in common with the other, had thus also an abundance of

sparks. The man finding this hand recover so much faster than the other, ascribed the greater benefit, not to the greater dose of electricity, but to the sparks. He requested that both hands might now have shocks no longer, but sparks; and as there could be no harm in indulging him in his predilection for sparks, I ordered him no longer shocks, but sparks, and he continued to amend, and more rapidly, as he thought, under the sparks than before; however that might be, he went out nearly well. He did not wish to stay here any longer, being satisfied that he was recovered sufficiently to go to work. He could extend his hand, fingers, and thumbs, and grasp very firmly, so that he felt he could now gain his living again. I am glad to say he found some other occupation, and did not return to the poison.

Dr. Pemberton, in his work on diseases of the abdominal visceræ, when speaking of *colic*, takes occasion to speak of palsy of the wrist from lead, the same poison which frequently produces colic, and he recommends the hand to be extended on splints. For many years, at his recommendation, I caused the hand to be thus extended, but I cannot say I have had reason to think the practice did good. Friction, with various stimulating substances, and placing the wrist and hand in hot water (as hot as it can be borne) is very good, but certainly no stimulant is equal to electricity or galvanism: we employ common electricity here. Electricity goes much deeper than any liniment. If you use any liniment, of course the stimulus is applied merely to the surface, though undoubtedly the friction, and perhaps external heat, may affect the parts within. It is the parts within that you wish particularly to be affected, and electricity will penetrate to the inmost parts; you may send it where you like; it is very natural, therefore, to suppose it much more powerful than any external application. The electricity was applied from the elbow downwards, all over the forearm, wrist, hand, and fingers.

There is another patient now in the hospital with the same disease, who is likewise improving very much under the same treatment.

PROLAPSUS OF THE VAGINA.

There was a woman presented with prolapsus of the vagina; she was said to have some horrid disease or other of the womb, but on examination I found it was nothing more than prolapsus of the upper part of the vagina. That part appeared so relaxed above, that on making the least effort it descended, and formed a large globular tumour at the upper part, forcing its way downwards and forwards, and the uterus descended a little with it. The disease appeared to be merely an extreme relaxation of the upper and anterior part of the vagina. Upon giving her a pessary she was able to go home.

The patients admitted last week were ten; three females, with hysteria, bronchitis, and gastritis; seven males, with bronchitis, chronic dysentery, chronic peritonitis, neuralgia, palsy of the wrists from lead, and two of secondary syphilis.

PROFESSIONAL ATTENDANCE AT DUELS.

To the Editor of THE LANCET.

SIR,—You will, perhaps, allow me to inform your readers, that the late Mr. Heaviside was the surgeon alluded to by Mr. Justice Bayley, as having been at the bar of the Old Bailey for attendance at a duel. The facts of the case were these:—Two gentlemen, named Montgomery and M'Namara, upon a very trifling occasion, quarrelled, and engaged with inveterate animosity in a duel; they were both known to be excellent shots, and were determined to do business. They went to the field attended by their seconds and surgeons. When all preliminaries were adjusted, the principals fired together; Montgomery fell dead, and M'Namara was unhurt.

The survivor, seconds, surgeons, &c., were apprehended and taken to Bow Street. M'Namara was committed to Newgate to be tried for the murder. Heaviside was strongly reproved by the magistrate for being present upon such an occasion; he answered in a very grand style, justified his conduct, asserted his right to exercise his profession whenever and wherever he was called upon to do so, and avowed his determination to attend upon any similar business, if, in future, he were called upon.

"If that be the case, Sir," the presiding magistrate (I think it was Bond) said, "I must teach you to understand the law better, and immediately committed him to Newgate to be tried as an accessory before the fact. M'Namara was tried for the murder and acquitted. Heaviside was likewise acquitted and liberated. I conversed with him a few days after he was liberated; between ourselves he still insisted upon his right to attend upon duels when he was called upon to do so, but avowed his determination to be very careful how he exercised that right in future.

I am yours, &c.,

T. SHELDRAKE.

No. 73, Upper Berkeley Street,
Portman Square.

THE LANCET.

London, Saturday, Feb. 26, 1831.

When we were so unpolite and indifferent last week as to retire from the commanding eloquence and forcible arguments of Dr. Anthony Todd Thomson, *half*-professor of medical jurisprudence in the University of London, the "grateful" admirer of the worshipful hags was enforcing the expediency of "*expertness*," and the necessity of the powers of prophecy in medical witnesses. His words were these:—"He is presumed to be an *expert* witness; to *foresee* the *consequences* of his answers; to have some idea *beforehand* of the nature of the questions which he will be required to answer, and to prepare himself accordingly." Further; the witness was required to "know as much of the *law* of *evidence* as would enable him to *penetrate* the *intentions* of counsel to mislead him." It certainly were to be wished that medical evidence were on all occasions unexceptionable. Counsel, however, are allowed such vast latitude in cross-examination, and medical facts and theories are so innumerable, that that querist must, indeed, be a dull-headed fellow who could not puzzle, or apparently confound, the most learned and philosophical member of our profession. When the doctor talks of a witness "foreseeing the CONSEQUENCES of his answers, of *penetrating* the *intentions* of counsel, and of having some idea *beforehand* of the questions he will be required to answer," he reminds us of a proposition made in this metropolis by a celebrated jurist in an annual oration. It was nothing more nor less than this;—That medical witnesses, that is those for plaintiffs and defendants, should meet before going into court, and agree "*beforehand* upon the evidence they should give." This practice, it was stated, would save the profession from much reproach and sarcasm, and shield it from those lamentable exposures of incompetency which are so frequently presented to the public in our courts of law. The scheme was loudly cheered by, we suspect, the Thomsonian portion of the auditory, and the exhibition passed off with the greatest eclat. On a subsequent occasion, having met the learned lecturer in company, he said, "Well; what think you of my plan for deciding upon evidence before going into court? Is it not a settler for the brow-beating counsel, a regular hit; a knock-down by ——?"—"As part of a plan," we replied, "it is probably unexceptionable. A point, however, of some importance is requisite to make the thing complete. You must agree also upon the *questions* to be propounded by counsel in their *cross-examinations*." This seemed, too, almost a "settler," for the querist concluded the conversation on the subject by exclaiming,—"My stars! this did not occur to me, we never thought of *that*." So it happens, we believe, with Professor Thomson. It never occurred to his vivacious understanding that gentlemen less gifted than himself would never be enabled to "penetrate the *intentions* of counsel," or to "*foresee* the *consequences* of answers." We fear it must be confessed, that if the failures in the witness-box are equal to the failure of Dr. Thomson in this lecture of his, the profession is in but a sorry plight. It is really surprising, that a man possessing ten grains of common sense, should have omitted to perceive that he was inditing some of the vilest trash ever ushered into public notice, even in the *imposing* form of an "introductory" lecture.

Here we had reached the bottom of a page (would it had been the last!), when we hoped to be relieved for a moment from the further inspection of this most sickening professorial twaddle. Alas! disappointment is our lot, for at the conclusion of the very next sentence, one which relates to the duty of medical witnesses in cases of lunacy, our author says, "Without some acquaintance with

the legal *object* of the inquiry, the evidence of the medical practitioner will not only be defective, but he will scarcely be able to understand the questions that he may be asked." Thus again intimating, that the *attention* of the witness should be abstracted from the immediate and obvious reply to the question, by contemplating the *objects* for which the legal inquiry had been instituted, or to the *consequences* which might result from the investigation. The cases put by the doctor in illustration of the position are these:—"Lunacy, whether it be *that* lunacy which exempts from criminal responsibilty, or that which incapacitates an individual from the management of his own affairs." Now then, doctor, let us place you in the witness-box, in each of these cases, and in replying to our questions, we beg of you to "penetrate" the intentions of counsel, and at the same time to devote particular attention to the *objects* of the inquiry.

First Case.

The KING *versus* STURDY PRESS.

The prisoner was charged with the *wilful murder* of ABERDEEN DUB. The case for the prosecution having closed, Dr. THOMSON was called for the *prisoner*.

QUESTION.—Is the prisoner capable of managing his own affairs?

WITNESS.—Yes.

QUES.—Does he know right from wrong? Is he, do you think, a responsible being?

WIT.—No.

Now reverse the inquiry, the *object* being to prove *incapacity* merely.

QUES.—Is STURDY PRESS a responsible being? Does he know right from wrong?

WIT.—Yes.

QUES.—Is he capable of managing his own affairs?

WIT.—No.

To say nothing more, it is to be hoped that the mere fancied absurdity of a position like this, will be sufficient to deter the doctor from hazarding a repetition of such monstrous arguments, though it were idle to expect much in the way of rationality from him if he continue in the state of mind which possessed him when he penned this lecture. Look here, reader:—"In addressing the *law-student* and the young *barrister*, I would press upon *him* the opinion, that without some knowledge of medical science he cannot do justice to his client; (he might in a few cases we should think;) by possessing *it* (some knowledge), he will be enabled to *probe* the skill of medical witnesses (probe the skill!) to unmask ignorance (query after our present fashion?) to ascertain what ought to be stated (that is, the evidence which would suit his side of the question), to detect false representations, and," gentle reader, what further think you?—"TO SUPPLY NEGLECT, or *correct omissions*, and THUS fully to *elicit truth*." This is an original idea; it is, at the same time, an original operation, and, by the way, not a little curious one. The counsel, poor wight, is to "elicit truth," by "supplying neglect." Passing over about half a dozen lines, we come to a passage occupying upwards of two pages. It commences thus:—"The chief qualification of the medical man, when placed in the witness-box, *independent* of professional attainments, is a sacred love of truth, a determination to sacrifice for it every opinion, theory, or hypothesis, and to admit nothing as *proof*, as I have already stated, which is not capable of *demonstration*." The doctor goes a little too far here; nevertheless the language indicates correct feeling, and a considerable share of sound sense. The points, however, were too obvious to be neglected or obscured. "Another qualification of great importance is patience." And now let us see how the other parts of this paragraph will square with the sensible introductory passage just quoted. "A third qualification is SECRECY; for without the power of keeping a secret, the medical witness may inflict, unintentionally, the utmost misery upon individuals." The lover of

truth, we suspect, when in the witness-box, must find the office of "secret keeper" rather a disagreeable one.

But now for the climax :—

"I have heard it stated that an eminent barrister obtained the acquittal of a murderer, who, previously to trial, had acknowledged to him his guilt. The acquittal arose from his address in the cross-examination of the medical witness. This gentleman, the witness who at first gave such a *clear* and distinct testimony as would have *convicted* the prisoner, was rendered afterwards so confused by impatience and dread under his cross-examination, *as to lose the power of* COMPARING *one part of his testimony with another*; which was thus so much weakened, as to render it of *no value* in the summing up of the judge, and in determining the *verdict* of the jury."

Lost the power of *comparing!* Is evidence to be guided by first impressions, or first statements? Comparing? Why, is it not the duty of the witness to give distinct and true answers to *all* questions, without reference to what might have been said previously, either by mistake or by others? "*Comparing*" what? If a witness, in his examination in chief, were to swear that arsenic was the only poison which could destroy the mucous membrane of the stomach, would the doctor have him continue to swear the same thing in his cross-examination, and after he had discovered his error, merely because his first and last testimony should harmonise in "COMPARISON?"

Such is the conclusion of the paragraph which commenced so favourably. The practice inculcated by this language, is opposed to every principle of justice, of propriety, and of truth, and if pursued would bring upon our profession the just and lasting reproaches of every honest and intelligent man. Dr. Thomson ought to know, that this system of comparing words with words, of rendering the answer in cross-examination suitable to the answers in the examination in chief, is the peculiar trade of *perjured* scoundrels, of men who lend themselves out to the hire of rascally attornies to swear any-thing which they may be instructed to swear; and that villain is deemed the most "expert" who may be gifted with the best *memory*.

From these "important qualifications" of witnesses, we turn to a point of pathology, in which we had certainly some reason to expect that the doctor would prove more *au fait* at his subject.

"It is true," he remarks, "that the appearances in certain cases of poisoning cannot be mistaken; as for instance, the pulpy state of the stomach when oxalic acid has been swallowed; and the *dissolution* of the mucous, nervous, and muscular coats, whilst the peritoneum remains little affected when arsenic is the poison, *leave* no room for doubt."

This is a most extraordinary passage, and it seems to prove that the doctor is not much better qualified to treat this part of his course of lectures, than he is any other of those branches which we have already considered. In truth, there is something appalling in the carelessness, the extreme inaccuracy which are so exhibited in the language now before us. "The pulpy state of the stomach when oxalic acid has been swallowed!" This would lead the pupil to infer without any qualification whatever, first, that a pulpy state of this organ is *proof* that oxalic acid has been swallowed; and, secondly, that when this poison has been taken, the fact is proved by a pulpy state of the stomach; whereas, this condition of the organ may exist without being caused by the contact of oxalic acid, and oxalic acid may destroy, and does destroy, without producing the effect which the doctor has described. Again; what is his language in relation to the action of arsenic? "The *dissolution* of the stomach," he says, "*leave* no room for doubt." Now the coats may be dissolved independently of the influence of ar-

senical action upon the stomach, and, further, arsenic may kill without destroying even the *mucous* coat. Hence we are led to infer that the doctor has nearly as much to learn in this department of pathology as his pupils, who are to take to the old hags "a *course* of medical jurisprudence," as a "qualification" for their "license." We shall, therefore, bid adieu to the doctor, in order that he may pursue his studies undisturbed by a more lengthened criticism on his first unfortunate performance in the "half-chair" of medical jurisprudence.

JOHN LONG, quack, and felon, has been tried at the Old Bailey, on a charge of having killed Mrs. COLIN CAMPBELL LLOYD, and—hear it, ye powers! he has been acquitted! The evidence on the part of the prosecution was similar to that which was adduced at the coroner's inquest. As this was reported at the time in THE LANCET, it would only be a waste of time and space for us to give a repetition of it here. We cannot, however, refrain from directing attention to a reply given by the *chief* medical witness:—

"Mr. JUSTICE BAILEY. 'Would a man of common prudence or common judgment have used an application likely to have produced such fatal consequences?'

"Mr. VANCE, *surgeon*. 'I *think* not.'

"Question repeated.

"Mr. VANCE again. 'I THINK not!'"

Let those who are anxious to condemn the judge and jury, reflect for a moment upon what must have been the *effect* produced by this evidence—evidence delivered by the chief medical witness for the prosecution—upon the feelings and mind of the Court. Its prisoners are always entitled, and more especially in criminal cases, to the benefit of a *doubt*, if any be entertained, upon the question of their guilt, and we know not how any jury, coupling this *thinking* testimony of Mr. VANCE, with the astounding facts in proof of the prisoner's "ability," sworn to by the members of the "*singe-ing club*," could have omitted to return a verdict of "Not guilty." Mark. We do not condemn Mr. VANCE for not having tendered more positive testimony against LONG, but we do condemn him, and severely too, for having given such an answer to a plain, straightforward, question.

JUDGE. Would a man of common prudence or common judgment have used an application LIKELY* to produce such *dangerous* and *fatal* consequences?

WITNESS. I THINK not.

JUDGE. Gentlemen, it is a *doubtful* case, you see.

JURY. "Not guilty."

After the first step, nothing could have been more natural, more straight-forward, than the second and third; for, be it remembered, that the "*such* dangerous and fatal consequences" to which Mr. Justice BAILEY referred, had just been proved by Mr. VANCE HIMSELF, and were as follows:—An *ulcer* from one arm-pit to the other—mortification—the breast-bone laid bare—the wound extending *seventeen inches* in *length*, and *eleven* in *breadth*,—and *death*. "Would a man of common prudence use an application LIKELY to produce such effects?" "I THINK not."

It is unnecessary to say more. Mr. VANCE, we dare swear, believes that he discharged his duty admirably, and so think the jury. We shall not say that the persons who profess to have been cured by LONG, came forward to swear falsely, or that LONG himself is an impostor, a doubly-stained slaughterer, and ought to have been transported for life. Thus much, however, we must declare, that if there be deception, the public mind ought to be disabused, and if the clamorous adherents of LONG be sincere in their belief of his "profound skill," their sincerity ought to be established, and LONG's abilities acknowledged. We have proved no more than

* This is the point.

one occasion, that it is the better plan to meet men of great pretensions upon their own ground, and we have learned by experience, that where the mind has been deceived by first impressions made upon particular senses, it is only by counteracting impressions made upon the *same* senses that the mind can be undeceived. The fate of Monsieur CHABERT, of prussic acid notoriety, must be fresh in the recollection of the majority of our readers. Now we have a very simple proposition to make to JOHN LONG and his titled "admirers." The latter have sworn that his "lotion," when rubbed upon skin which covers a *diseased* part, will immediately produce a *discharge* from that skin. That the "*same* lotion," when rubbed with equal force upon skin covering *sound* parts,* will produce no sore, discharge, inflammation, or mark whatever. Further. LONG has published a book, in which there is a letter from Lord INGESTRIE, containing the following passage:—"I am willing to bear *ample testimony* to the FACT of your having *extracted a fluid* like MERCURY from the head of one of your patients in *my presence* on *one* or *two* occasions. If these remarks can be of any use to you as being those of an eye-witness, I hope you will make what use you please of them."

Again. "WE, the undersigned, have been personal witnesses of the effects produced by Mr. LONG's mode of treatment on one of his patients, whom we visited at her residence. She was immediately excited and irritated at our being admitted to her apartment, and did not recognise her parents, while her conversation gave much proof of her being *insane*. Mr. LONG applied his remedies to her head, which IMMEDIATELY produced a flow of liquid matter from the temples. A short time only elapsed, till she came to her reason, recognised at once her friends, and spoke rationally, assuming a different tone of voice and a placid demeanour." This certificate is signed "HAREWOOD, DARTMOUTH, HOWE, THOMAS LAWRENCE."

Once more.

"London, June 19, 1829. We, the undersigned, who are patients of Mr. LONG, give our testimony to an *extraordinary fact*. It relates to a patient of Mr. LONG. We saw about a fortnight since, on three different occasions, a quantity of MATTER *extracted* from his temples, and produced by the same external remedies that we were applying to *different* parts of our *bodies* for the purpose of removing inflammation." Signed.—"PETER O'BRIEN, Limerick; S. H. OUGHTON, Manchester; G. DENZI, Palermo; INGESTRIE, London; and W. ABINGDON, India House."

To this certificate LONG adds the following paragraph.

"This gentleman, now in his visits to me, frequently makes use of the *same remedies* he employed while labouring under his complaint, for THE SAKE OF THE REFRESHING SENSATION THEY AFFORD."

Well then, the case stands thus. LONG alleges, in common with several noble lords and other persons, that by means of a lotion he has *immediately* extracted "a fluid like MERCURY," "a large quantity of matter," "and an acrid fluid," from the temples and various other parts of the body, and that the "same lotion" had no effect whatever when rubbed upon the skin of a sound person. Further, his witnesses swore at the inquest held on the body of the late Miss CASHIN, that this "same lotion" might be taken "*into* the *mouth*, and *swallowed* with *impunity*." Our offer, therefore, to Mr. LONG and his "admirers," is simply this;—that the Editor of this journal, accompanied by only one witness, will attend at any place that Mr. LONG and his admirers may appoint, or if that be objected to, he will attend ALONE; and that if Mr. LONG will, in his

* Mr. PRENDERGAST, M.P., gave evidence to this effect:—The lotion "immediately produced a discharge between his shoulders, but had no effect when rubbed upon his forehead or his thorax." The applications of Long had some effect upon his *chest*.

presence, produce those effects by means of his lotion which have been *sworn* to by his witnesses at the inquest, and which have been *attested* by the noblemen and gentlemen in the above certificates, the EDITOR will then acknowledge to the assembled company, and afterwards to the world, that Mr. LONG has been basely calumniated, that he is the most talented secret operator in the universe; and, further, the Editor will consent to pay one hundred pounds to any charity which may be named by the Earl of HAREWOOD, the noble Earl of course being himself present at the exhibition,—a public duty from which we are certain this excellent nobleman would not shrink; because, as one of the attesting witnesses to the extraction of the matter from the temples, his certificate may have had some effect in inducing those unfortunate victims, Miss CASHIN and Mrs. LLOYD, to place themselves under Mr. LONG's "system" of treatment.

Here, then, the question stands fairly before the public and the medical profession on the one side, and Mr. LONG and his "admirers" on the other; and if this *challenge* be not accepted, as it embraces nothing, according to the witnesses, which is not perfectly *easy* and practicable, LONG must henceforth be considered as one of the vilest and most scandalous jugglers that ever disgraced society, and his "admirers," if, to the imminent danger of the public health, they afterwards continue to support him, must be prepared, notwithstanding their high titles, to be stigmatised as the willing dupes and fools of a dishonest and tricking knave.

A PROPOSAL to establish a public dispensary in the important and populous town of NOTTINGHAM, has led to some public meetings, and, by an unexpected course of events, to much excitement and dissatisfaction among the members of the medical profession. The gentlemen who attended the first meeting, including some physicians and surgeons, were named as the committee. At the second public meeting an amended list of the committee was read, from which there were excluded the names of those medical gentlemen who had been previously appointed. This occasioned a discussion and correspondence, which, in great measure, terminated, by the introduction of the names of the three senior surgeons, and the three senior physicians. Mr. JOWETT, however, a highly respectable and able surgeon, who had been most strenuous in his endeavours to establish the dispensary, is even now excluded from the committee, and the mode by which that exclusion has been effected, is, we are bound to state, of a highly personal character. The committee or subscribers appear to have been influenced in their proceedings by a Mr. THOMAS WAKEFIELD, a cotton spinner, and sort of busy body, residing in the town. This gentleman and his followers profess to think that a medical institution can be best regulated by gentlemen who are entirely ignorant of all medical subjects. Now we would ask Mr. THOMAS WAKEFIELD, cotton spinner, and those who think with him, this plain question:—If a manufactory for the spinning of cotton were to be erected in the town of NOTTINGHAM for the benefit of the poor, what would Mr. WAKEFIELD and his friends say if surgeons, physicians, clergymen, and ironmongers, were to resolve that no cotton spinner should be allowed to sit upon the committee of management? The answer to this must decide the question as to the propriety of excluding medical gentlemen from participating in the government of a medical institution.

From the ungentlemanly and illiberal conduct displayed by the committee towards the members of the profession residing in NOTTINGHAM, and more particularly towards Mr. JOWETT, we think those gentlemen would have best consulted their own dignity, and even the interests of the public, by withdrawing altogether from the

undertaking. Strong evidence of an *esprit du corps* in such a case, is highly commendable, and even salutary.

Of the policy of establishing the dispensary we entertain very great doubt. In truth we have long been of opinion that these institutions, whilst they effect little or nothing for the poor, are silently, but certainly, working the ruin of thousands of the profession. Medical men in these establishments work gratuitously. For whose benefit? Not, as it is pretended, for the benefit of the poor. Not even for the benefit of the subscribers, but for the benefit of those who would be compelled by the laws of the land to supply medical attendance on the afflicted, at a proper rate of payment, if there were no pretended charitable medical institutions in existence. Why should medical men be the only individuals in the community who are required to exercise their talents, and devote their labours, for nothing? Do the attorneys come forward to supply law gratuitously? Are linen-drapers required to supply calicoes gratuitously? Are ironmongers required to supply tea-kettles and saucepans gratuitously? Yet medical men in the "public charities," as they are called, work and slave themselves to death, without receiving a farthing in the shape of pecuniary recompense, or even the paltry acknowledgment of thanks from one in forty of the subscribers. In fact, the annual payments made to these institutions have become a species of profitable trade to those who bestow them, while the whole of the gain is wrung from the pockets of the members of a deserving, but not over-rich, profession. We shall continue to direct attention to the proceedings at Nottingham, and if necessary shall recur to the subject.

The statement published in some of the newspapers that a Charter has been granted to the London University is entirely without foundation. Indeed, we deeply regret to find, that difficulties on this subject have presented themselves in a quarter where they might least have been expected. This Institution is likely to prove a blot on that escutcheon of which it ought to form one of the brightest ornaments. It is in very many respects a splendid and useful establishment, and the support of the government, which cannot now be justly withheld, will render it of incalculable advantage to inhabitants of the not-over-educated inhabitants of this metropolis.

COLLEGE OF SURGEONS.

NAVAL SURGEONS.

We are not aware that the President and Council of the College have yet received any reply to the memorial which, in compliance with the unanimous call of the profession, they have presented to the Lords of the Admiralty. After the very kind and appropriate spirit displayed by Sir Astley Cooper, and other Members of the Council, at the Theatre in Lincoln's Inn Fields, no one can doubt that, on this occasion at least, these gentlemen will omit to adopt any measure which may appear calculated to uphold the dignity and respectability of the members of the profession.

Just as this sheet was going to press, we received the following communication from Mr. King:—

To the Members of the Royal College of Surgeons.

Gentlemen,—I lose no time in laying before you the subjoined communication. As we transacted business without pens and ink and almost without paper, the resolutions were not signed when handed to Mr. Keate, to whose politeness I am indebted for the honour of authenticating them by signa-

ture. In the hope that justice will be done, I have the honour to remain,

Your faithful servant and confrère,

T. KING.

10, Hanover-street, Hanover-square,
February 24, 1831.

SIR,—I think it my duty to inform you, that I have this day laid before the Council of the Royal College of Surgeons, the second resolution and its duplicate, signed by the mover and seconder, and inclosed to me in your letter of the 18th instant.

I am, Sir,

Your most obedient humble servant,

ROBERT KEATE.

15, Albemarle-street,
February 22, 1831.
T. KING, Esq.

METROPOLITAN SOCIETY OF "GENERAL PRACTITIONERS" IN MEDICINE AND SURGERY.

THE difficulty encountered by the members of the Committee in their endeavours to establish this Society, have induced them to recommend that it should be dissolved; and we are authorised to state, that a general meeting of the subscribers is to be forthwith convened for that purpose.

We always contended that this Society was based upon a defective foundation, and, simultaneously with the announcement of its establishment, we predicted its fall. As it is possible that the *exposé* at the general meeting may afford some useful hints to the profession, we shall report the proceedings in THE LANCET. The majority of the members of this association are sincere and zealous medical reformers, and their exertions in the attempt now about to be made to establish a national College of Medicine, which will open the doors of a medical association upon the broadest and most efficient scale, will now be called into action by the impolitic arrangements of a defective institution.

Mr. BATES, a respectable surgeon, residing at HORSELYDOWN, made a determined stand last week at an inquest held before Mr. CARTER, the Coroner for SURREY, against giving his evidence until he had been paid for his attendance. The coroner, at last, threatened to enforce the law, and Mr. BATES was obliged to yield. It ought to be known that a surgeon is liable to be commited for contempt, if he refuse to give evidence before a coroner when he has been duly summoned. In suits of *nisi prius* the law is different. A witness may then successfully refuse to give evidence until he has been paid his "just expenses."

AN ESSAY ON THE

LIGATURE OF THE INNOMINATA

AND

SUBCLAVIAN ARTERIES,

THE LATTER BETWEEN THEIR ORIGIN AND THE SCALENI MUSCLES.

By THOMAS KING, *Esq., Lecturer on Surgery.*

I THINK it was in 1824 that, being engaged in teaching anatomy and surgery in Paris, my attention was first called to the superficial situation of the arteria innominata, and the facility of tying it. To Mr. O'Donnel, now an eminent practitioner in Liverpool, belongs the merit of having discovered the quickest, safest, and best mode of tying this vessel, and to him I am solely indebted for the notion I formed afterwards, of applying the same operative process to the ligature of the subclavian arteries prior to their passage between the scaleni muscles. One day, this gentleman, a most accomplished anatomist and expert operator, undertook in my class-room to tie the innominata without dividing a single muscle or important part, and that in an incredibly short space of time, I think two minutes. A body was placed on the table; Mr. O'Donnel laid bare the trachea, passed his finger down upon it towards the chest, and embraced the vessel in a ligature. The operation was completed in a trice, to the astonishment of all present. But the simplicity of the plan, when once executed, was so striking, that far from surprise being evinced at the success of the operator, every-body wondered, as is often the case,

at the attainment of a new object, that it had never been thought of before. Still the subject lay dormant in my memory till I had occasion to perform the operation of laryngo-tracheotomy upon a woman for œdema of the glottis; when feeling the large vessels thump away superficially at the bottom of the neck, my attention was fixed more than ever upon the anatomy of this region. The more I considered the matter, the more was I at a loss to account for the opinion entertained respecting the situation of the innominata artery and the mode of taking it up; for Mr. O'Donnel's operation, and that I had performed upon the air-tube, made what may be termed a practical impression upon me; they impressed me with the superficial and open situation of the arch of the aorta, and consequently of all the large vessels springing from it. What Mr. O'Donnel had done for one of these, it seemed to me might be applied to them all, and if so, I became at once the advocate of this gentleman's operation, and the inventor of a new one founded upon it—one for tying the subclavian arteries between their origin and the scaleni muscles.

In commanding the cross of the aorta, I could tie these vessels nearer their origin than had ever been supposed possible, and therefore somewhat extend the boundary of operative surgery. I soon satisfied myself that my opinion was correct, and sometime afterwards, did not hesitate to lay it before the professors of the school of medicine in Paris, in the presence of some of whom I performed these operations on the dead subject; and as they have not been published in England, I shall submit them to this Society, first recalling the anatomical relations upon which they are founded, and after describing them, take a cursory view of the objections to which they are liable.

It is at the superior aperture of the chest that an instrument, or the finger, passed downwards upon the trachea, necessarily comes in contact with the cross of the aorta. This vessel arises from the anterior part of the left ventricle at its base, opposite the centre of the fourth dorsal vertebra, and from this point to the lower part of the left side of the third, it forms what has been termed its arch. The most elevated part of this arch corresponds to the lower part of the second dorsal vertebra, and it constitutes more than three parts of a circle of about three inches in diameter. The curvature is far from being regular; the vessel first proceeds forwards and to the right without any ascent, then ascends almost vertically, and, finally, it curves across from left to right, and from before backwards, to terminate in a vertical direction. The anterior and posterior planes are, therefore, inclined, the former to the left, the latter to the right side, and in one-fourth or fifth of its extent, it is contained within the pericardium. Its relative position, which we now have to consider, is of the greatest importance. Its anterior region, concealed at first by the origin of the pulmonary artery, is covered by cellular tissue, through which some mediastinal vessels run, sometimes by the thymus gland, and finally by the anterior wall of the chest, that is, principally, by the sternum, from which, in its most anterior part, it is distant only about half an inch. Its posterior region is in relation, first, with the right branch of the pulmonary artery, further on with the trachea near its bifurcation, and, finally, with the left side of the third dorsal vertebra; its right side, or region, corresponds to the superior cava; the left is in relation with the left lung; its inferior region corresponds to the heart, the bifurcation of the pulmonary artery, the ductus arteriosus, and left bronchus. The superior region of the aorta, to which I wish particularly to call the attention of the Society, and which it is most important to consider on this occasion, corresponds to the superior aperture of the chest, an aperture offering about two inches and a half in its antero-posterior, and four and a half in its transverse diameter; it is there lodged under a sort of triangular vault, which is bounded anteriorly by the deep layer of the cervical fascia, the inferior extremities of the sterno-hyoid and sterno-thyroid muscles, and the sternum; and bounded posteriorly by the trachea. This region of the arch of the aorta is a little in relation with the left subclavian or innominata vein, which, as it advances to the right side, somewhat overlaps its anterior region.

The superior aperture of the chest bounded behind by the spine, and anteriorly by the sternum, with the sterno-hyoid and thyroid muscles attached to it, is occupied in its three posterior fifths by the trachea and œsophagus, whilst the aorta, with the large branches springing from it and the left subclavian vein, occupy its two anterior fifths. The aorta, in forming its arch, traverses this aperture on a level with the inferior part of the second dorsal vertebra, passing obliquely from right to left, and from before backwards. In consequence of this disposition there is, on the left side, between its anterior region and the sterno-hyoid muscle, a space sufficient to admit the finger, and on the right side a similar space between its posterior region and the longus colli muscle.

The left phrenic and pneumo-gastric nerves pass before the left portion of the arch around which the recurrent branch of the first winds. The œsophagus and thoracic duct are found to the right of its termination, the former situated anteriorly to the latter. Most of the cardiac nerves creep

upon the arch of the aorta, between which and the bifurcation of the pulmonary artery, and before the end of the trachea, is the cardiac ganglion. Excluded from either pleura the aorta winds from the anterior to the posterior mediastinum, which it may be said to unite at the upper part of the chest, embracing in its arch a portion of the left auricle of the heart, the right pulmonary artery, and the left bronchus.

The innominata arises from the arch before the trachea, the left subclavian on a level with the inter-vertebral substance between the second and third dorsal vertebræ, and the left carotid at the junction of the inner, with the middle third of the space between the two first-mentioned vessels. The innominata extends as far as a line drawn from the right sterno-clavicular joint to the centre of the body of the first dorsal vertebra, where it rests immediately upon the right side, but anterior part of the trachea. In this place it seems rather to continue as subclavian, after furnishing the right carotid, than to form these by its bifurcation. Thus the passage of the innominata is in an oblique direction, upwards, outwards, and backwards. Its anterior region is covered by the left subclavian, and unfortunately by the inferior thyroid veins, a little by the thymus gland, the deep layer of the fascia of the neck, the lower part of the sterno-hyoid, sterno-thyroid, and sterno-mastoid muscles, the sternal extremity of the clavicle, and the platysma myoides; its posterior region is in relation with the trachea, and at its termination separated from the longus colli muscle, by a space admitting the end of the finger. On the right of the artery are the pneumo-gastric nerve, the internal jugular vein, and the pleura, from which last it is separated by cellular tissue and lymphatic glands; on its left, between it and the left carotid, is a free space, at the back of which the thyroid veins run close upon the trachea; its inferior region corresponds to the pleura, and is somewhat in relation with the superior cava. The left subclavian vein passes immediately before the vessel opposite its upper part; some cardiac nervous filaments creep upon its anterior region. In general it gives off no branch, but sometimes one which runs upon the trachea to the thyroid gland. The right subclavian artery extends from the right side of the trachea on a level with the middle of the first dorsal vertebra to the external edge of the first rib, which, in my mind, ought to indicate the distinction between it and the axillary artery. It is intermediate in size to its fellow of the opposite side and the innominata. A line drawn from the right of the trachea to the tubercle of the rib for the attachment of the scalenus anticus muscle indicates it course, but being obliged to descend slightly, and at the same time to pass over a convex part, it curves over the summit of the right lung, forming a sort of vault to the pleura costalis, with which it is in immediate contact. Its anterior region is covered from within outwards by the pneumo-gastric and phrenic nerves, and some filaments of the great sympathetic, by the vertebral, internal, jugular, and subclavian veins, by the deep layer of the fascia of the neck, the lower part of the sterno-hyoid, sterno-thyroid, and omo-hyoid muscles; more externally this region of the artery is covered by the scalenus anticus muscle, and is, finally, placed between the subclavius muscle and the first rib. The posterior region of the vessel is separated from the longus colli muscle and first costo-vertebral joint, by a space occupied by the great sympathetic and recurrent nerves, lymphatic glands, and cellular tissue; further on it is in relation with the brachial plexus, which separates it from the scalenus posticus muscle, and, finally, still in contact with the plexus, is lodged with it at the summit of the axilla, in the space bounded externally by the m. subscapularis, and internally by the serratus magnus; its inferior region rests upon the pleura, first rib, and first external intercostal muscle. The superior region, which we have most to do with in this description, lies at first in a free space bounded anteriorly by the deep layer of the fascia of the neck, and the inferior attachments of the sterno-hyoid and sterno-thyroid muscles, and bounded behind by the longus colli muscle; more externally it is placed between the scaleni muscles, and at last in the supra-scapular space, the omo-hyoid and platysma myoides muscles, the transversales colli and supra scapular vessels, with the external jugular vein, are, to a certain extent, in relation with it.

The right subclavian vein is situated rather inferiorly to the artery; the pneumo-gastric nerve, some filaments of the great sympathetic and the phrenic nerve, pass between the two, the first near the origin of the artery, the last near the scalenus anticus muscle. The left subclavian artery differing in its origin and extent from the right, has not the same relative position and direction as the latter. As we have stated, it arises from the end of the arch of the aorta on the left side of the intervertebral substance, between the second and third dorsal vertebræ, and ascends almost in a straight line outwards to the inner edge of the first rib, where it takes the same direction as the right. Its anterior region is covered inferiorly by the pleura and lung, and then by the left subclavian and internal jugular veins, the deep layer of the fascia of the neck, and the inferior attachments of the sterno-hyoid and sterno-thyroid muscles; its posterior region

at first rests on the left side of the spine and longus colli muscle, but as the vessel ascends, a space is left between them, which is occupied by the great sympathetic and recurrent nerves, lymphatic glands, and most frequently the thoracic duct; its internal region is separated from the left carotid artery by a space in which the pneumogastric nerve, which lies anterior to it, passes down to the chest; its external region or left side is intimately united to the pleura. The pneumogastric nerve runs parallel to the artery, the phrenic nerve crosses it anteriorly very obliquely, and the filaments of the great sympathetic embrace it, as its fellow, the right subclavian. The direction of the left subclavian artery is such as not to admit of distinguishing a superior and inferior region; but superiorly it is lodged in the same space as the right, the space limited anteriorly by the deep layer of the fascia of the neck, and inferior attachments of the sterno-hyoid and sterno-thyroid muscles, and posteriorly by the longus colli muscle. As soon as the left subclavian artery reaches the inner edge of the first rib, its relations, as well as its course, are exactly the same as those of the right.

In order to understand how the blood reaches the upper extremity, when a ligature is applied to the subclavian artery, it is necessary to bear in mind the branches it furnishes. These are, in general, five in number; the vertebral, thyroid axis, internal mammary, superior intercostal, and profunda cervicis, all of which arise on the cardiac side of the scaleni muscles, or between them.

I have not yet met with an opportunity of performing the operations here treated of upon the living subject; indeed, the cases requiring them are fortunately not very frequent. There are, however, some cases of aneurism and wounds in which the lives of patients might be saved by them. Hitherto the distinction between subclavian and axillary artery has been very indefinite, and not the same in every country; what is commonly called the subclavian artery has frequently been tied with success; that is, the artery just passing out from, or lying between the scaleni muscles; but the operations I am proposing, apply to the vessels before they arrive at, or on the cardiac side of, the scaleni muscles. Perhaps it would be as well to distinguish these operations, giving to the former the name of extra-thoracic, and to the latter that of intra-thoracic, which terms might also be applied to the arteries themselves. A ligature was applied to the intra-thoracic portion of the right subclavian artery by Mr. Collis in 1813, but the operation, performed in a manner very different to my plan, was unsuccessful. I know of no other attempt to tie the intra-thoracic subclavian arteries, which have been taken up frequently between the scaleni, but never except in the above instance on the thoracic side of these muscles. Neither am I acquainted with any successful case of ligature of the innominata. Graefe, of Berlin, and Mott, of Philadelphia, attempted it; the first patient lived three weeks, and the other a fortnight after the operation. It is scarcely necessary to observe, that in both cases a plan widely different from that of Mr. O'Donnel was adopted, and I do think the unfavourable result attributable in some measure to that circumstance.

It is so general and important a rule in tying arteries to attack them by their most accessible regions, or to cut down upon them through the most superficial and least important parts covering them, as to amount to an axiom in surgery, and it is in a great measure the test by which operations of this kind should be estimated. In attempting to lay bare the innominata, operators did not follow this rule, but carried their incisions towards its anterior region. Mr. O'Donnel, on the contrary, attacks its superior region. Judging the question by the above test, we have then only to determine which region is the most accessible. Anatomy clearly shows that the superior region is that by which the vessels can be approached with the greatest facility, and least disturbance of important parts; and, on the contrary, that it is almost impossible to uncover its anterior region, since the latter is concealed not only by the left subclavian and inferior thyroid veins, the fascia of the neck, the sterno-hyoid, sterno-thyroid muscles, and superficial parts, but also by the sterno-mastoid muscle, and the sternal extremity of the clavicle.

Now the superior region of the vessel may be said to be covered by no important parts; it lies in that space to which allusion has so frequently been made, between the deep layer of the fascia of the neck lining the sterno-hyoid and thyroid muscle, and the trachea. On the medium line this space may be cut into by merely dividing the skin and fascia of the neck, and when once in it, the surgeon has only to follow its posterior boundary—that is, the trachea, in order to reach the innominata. These observations apply with double force to the research of the subclavian arteries which lie in the same space; to arrive at the right subclavian the surgeon has only to follow the trachea, and to pass his finger along the trachea and spine to find the left. The last vessel, it is true, is deeply seated; but it must be recollected, that as the surgeon's finger exceeds the extent of the bodies of two vertebræ, the artery can be commanded even at its origin; and were it still deeper,

it might be commanded by properly-constructed instruments. Besides, attacking them anteriorly does not diminish their depth, unless it be proposed to saw through the sternum, and turn it out of the way. I have now to detail the different steps of these operations.

To tie the innominata, the operator places himself on the left of the patient near the head, which is extended, and makes an incision about two inches long from the upper end of the sternum on the median line, or obliquely (which I think preferable) along the inner border of the left sterno-mastoid muscle, dividing successively the skin and cellular tissue, perhaps some fibres of the platysma myoides, and the middle part of the cervical fascia; the finger is then passed into the cellular interstice, between the corresponding edges of the opposite sterno-hyoid and thyroid muscles, and directed rather obliquely under the right sterno-thyroid muscle, between which and the trachea is the deep layer of the cervical fascia. This fascia must be divided with the nail, or a blunt-pointed bistoury, and then the left fore-finger may be passed down along the trachea, bearing a little to the right, where it necessarily falls upon the artery, which, as we have so often mentioned, lies upon the air-tube in this place. Having well ascertained the precise position of the vessel, the surgeon directs the patient's head to be inclined forwards, in order to relax the muscles, and afford as much room as possible; he takes care to protect the left subclavian and internal jugular veins, by carrying them towards the sternum with the same finger, which is never removed from the vessel, and which serves to guide the ligature. The ligature is conducted by a blunt-pointed hook-needle, and drawn tight by the two fore-fingers passed into the bottom of the wound.

In this operation, the anastomotic veins placed under the sterno-mastoid muscle are sometimes wounded, if so, they must be secured by ligature. The innominata may thus be tied in the place of election; the ligature will be found at first near its bifurcation, but it may be easily moved by drawing it inwards upon the trachea. Neither the pleura nor the pneumo-gastric nerve is in danger; but some of the cardiac filaments of the great sympathetic, which run along the vessel, are necessarily included in the ligature.

No operation can be more easy and simple, or more in conformity with the true principles of surgery, than this, and it will be found, with very slight modification, to be applicable to the ligature of the right subclavian artery, which we have now to consider. To tie this vessel, the same incision may be made; only, when the finger is passed down upon the trachea, it must be directed more obliquely outwards, and sometimes it may be necessary to divide a few of the fibres of the sterno-thyroid muscle. The ligature is to be placed at any given point between the trachea and scaleni muscles, but we are here in close contact with the pneumo-gastric, recurrent, phrenic, great sympathetic nerves, and with the pleura. The first may be avoided by drawing it inwards, the phrenic should be carried outwards, and as the recurrent nerve may be felt winding round the artery, it may be cleared also by a little precaution. The pleura must be gradually and very methodically pressed down and detached from the vessel.

The principal modification necessary for the ligature of the left subclavian artery, consists in making the incision along the border of the right sterno-mastoid muscle instead of the left. The operator necessarily stands on the right of the patient, and passes his finger under the left sterno-thyroid muscle, along the left side of the trachea, over the left carotid artery, and along the left side of the spine, till he arrives at the vessel. The pneumo-gastric nerve should be left *in situ* on the inside of the finger, whilst the phrenic nerve, the internal jugular and left subclavian veins, are carried forwards and outwards. Considerable time is required to work the finger progressively and safely through the cellular tissue; the operator must proceed very slowly, step by step, and with extreme care; for he has not only to avoid injuring the vessels and nerves which are here in abundance, but must detach the pleura from the upper and back part of the chest, and nothing is more easy than to rupture this membrane; indeed the difficulty of detaching it without laceration, constitutes with some surgeons, as we shall have occasion to state, a serious objection to any attempt to tie the vessel.

When the artery is distinctly felt and cleared, so that the surgeon can pass his finger round it, a ligature may be applied by means of a long blunt needle, curved and hook-shaped at one extremity, or by Desault's *aiguille à ressort*. To tie the knots, two metallic tubes may be used, supposing the fingers too short. Great care must be taken that the way be clear, and nothing interposed between the first and second knot, an accident which I once witnessed in an operation for tying the external iliac, and which required a second ligature. To avoid the great sympathetic nerve and the thoracic duct, the ligature should be applied nearer to the origin of the artery than to the scaleni muscles.

I do not foresee that any objection can be made to this mode of exposing the vessels, because it is the only one which

the anatomy of the parts indicates; but most of the formidable objections made to the ligature of very large arterial trunks, apply to any attempts to tie these arteries. Still, as in some cases of wounds and aneurisms these operations afford the only hope of saving life, the surgeon will be justified in performing them, if there be some chance of a cure, or no proof that a cure is impossible.

With respect to the ligature of the innominata, no objection founded upon the difficulty of performing it can be taken; the lesion of every important part, with the exception of some cardiac filaments, may be avoided by a careful anatomist; the left subclavian and right internal jugular veins can be moved out of the way by the finger, and the injury of the minute nerves, running upon the vessel, ought not of itself to prevent an operation where it is the only means of preserving life. A strong objection arises from the difficulty with which the circulation is kept up in the head, neck, and right arm; but the arteries of the sound side are sufficient for the two former, and would carry the blood to the latter by their anastomoses with their fellows of the opposite side, which, in their turn, anastomose with vessels arising from the subclavian; these last, particularly the first intercostal and internal mammary, would receive blood also from the descending aorta by means of the other intercostal arteries. Besides, experience has answered this objection in the cases operated upon by Graefe and Dr. Mott, where one patient survived a fortnight and the other three weeks, and in neither of which the circulation was seriously impeded. Indeed, there is every probability Dr. Mott would have been successful, had he operated according to the plan here laid down.

The difficulty of tying the intra-thoracic subclavian arteries, furnishes an objection to the operation being undertaken by any but a skilful anatomist and well-educated surgeon, because parts are exposed the lesion of which would instantly cause death. The possible lesion of the internal jugular, vertebral, and subclavian veins of the phrenic, pneumo-gastric, and great sympathetic nerves; that of the thoracic duct on the left side, and the rupture of the pleura, constitute formidable obstacles to the safe accomplishment of the operation. But it must be recollected, that the injury of most of these parts can be avoided by protecting them with the finger. The thoracic duct is a serious obstacle, but as it is in direct relation with the artery only opposite the junction of the internal jugular and subclavian veins, it may be avoided by respecting the parts in the immediate vicinity of its termination. Some of the filaments of the great sympathetic must inevitably be injured, but not in sufficient number to be necessarily mortal. One of the greatest objections is the liability to rupture the pleura. I grant that it is a frequent occurrence even on the dead subject, but it is not unavoidable if the surgeon will but allow himself time—time, the great requisite of a sound operation. If it cannot be avoided by the plan I propose, which has the advantage of laying the artery bare to a great extent of its circumference without touching it, there is certainly no other by which it can possibly be spared. The surgeon has the opportunity of detaching it from the mediastinum outwards, just as the peritoneum is separated in the ligature of the iliac arteries. I admit, that the two cases are not perfectly analogous, for the pleura, which are of extreme tenuity, have not the cellular tissue that lines the peritoneum, and are closely applied to the subclavian arteries, especially to the left. Nothing is more difficult than their separation, still it is possible without the lesion of either. Supposing the lesion of the pleura inevitable, would this accident be sufficient to cause the operation to be rejected? For my own part, I should answer negatively. The membrane would be ruptured by the finger, and the lung would not be exposed to injury, therefore the lesion would be much less serious than certain penetrating wounds of the chest which admit of recovery. Another circumstance weakening the chances of success in these operations, especially that proposed for the right subclavian, is the proximity of large branches, which receiving fluid blood constantly, might prevent the formation of a coagulum in the artery, and consequently expose the patient to secondary hæmorrhage from its not being obliterated after the ligature; but as long as the obliteration is not proved to be impossible, the ligature is justifiable in all cases where death is certain without it.

The Society* will perceive that I have in no wise concealed the difficulties attending these operations; and, considering that the cases requiring them are of necessity mortal, it will, I doubt not, deem them justifiable also. In my own practice, I should, after a consultation, have recourse to them, and should any of my colleagues meet with a case and decline operating himself, I should be very grateful for the opportunity of giving these operations a fair trial.

Hanover-street, Hanover-square,
February, 1831.

* This paper was read before the Westminster Medical Society.

STEPHENSON AND CHURCHILL'S MEDICAL BOTANY.

To the Editor of THE LANCET.

SIR,—Having being a little "behind the scenes," and witnessed how the machinery of medical criticism has in general been sustained, I so highly value the impartiality with which you conduct your labours in that department, that I should consider it my duty to writhe under your lash without a murmur, were you to think it right to inflict punishment. But when I find you make remarks of an injurious tendency, which are evidently the result of incorrect data, you will readily concede my right to explanation. In No. 385 of THE LANCET, you have given a favourable notice of "Medical Botany," but remark, "that you cannot say that you think the publication a cheap one." Now that it will cost the purchaser rather more than eight guineas, is quite true, but notwithstanding this, I am bold to affirm, that it is not a dear work in the general acceptation of the term, having cost the authors the labour of five years, and nearly two thousand pounds to complete it. How they are to be repaid, excepting by the commendation the work has received, your knowledge of the almost universal poverty of the profession, of the complete ignorance of, and general inattention to, the subject, will readily suggest. Wishing to look with a complacent eye on my own labours, and with an admiring one on those of my coadjutor, I intreat you to come round to my opinion, as the publication, instead of containing "altogether nearly a hundred and fifty plates," has nearly two hundred, which addition to the number you have assumed as the groundwork of your remark respecting the price, adds nearly five hundred pounds to the author's expenses.

I might add, that previously to the appearance of our work, Woodville's was selling *for eight pounds eleven shillings*, and that it is now unsaleable.

I am, Sir, your obedient servant,

JAMES MORSS CHURCHILL, F.L.S.

CURE OF HYDROPHOBIA BY ASPHYXIA.

IN the same Number you have designated M. Chardon's plan of producing asphyxia as a cure for hydrophobia, a new method; so far from this being the case, I beg to inform you, that there are fishermen at Southampton who regularly, and *secundum artem*, perform this operation, by holding the bitten person under water with forked sticks, till the "blood is *turned*," as they term it. They have cards announcing their residences, skill, success, &c.; and nearly twenty years ago (I shall never forget it) I saw a man of the name of Covey row his boat about a hundred yards from the quay, and there hold a man under water in the manner described, for about three minutes. He was then quickly conducted to shore, and put to bed at the nearest public house. On the same day I saw *nineteen pigs* driven down to the water to undergo the same process; they came out of *Bark*-shire, in which county this *turning of the current of blood* is highly thought of.

*** Mr. Dewhurst will excuse me by reminding him, also, "that there is nothing new under the sun." In another letter I will state my reason for supposing that *acetic acid* was John Long's counter-irritant; if so, Mr. Dewhurst's humane assumptions in his concluding sentence, have but a sandy foundation.

J. M. C.

CHARGES OF PLAGIARISM.

THE Number of THE LANCET for February 12th, contained an abstract of a paper read by Mr. Quain to the Westminster Medical Society, purporting to communicate original information on the subject of the diagnosis of affections of the cerebro-spinal system and its membranes.

In it the names of Georget and Abercrombie are first quoted, apparently with most laudable candour, as though the best or the only authorities on the subject; but, in fact, merely for the purpose of intimating that they have failed to accomplish that in which the author has succeeded. In this proceeding there are two circumstances calculated to excite surprise; the one, that the essayist should have reckoned so confidently on the ignorance of his hearers and the public, as to lay claim to originality; the other, that none of the members of a medical society in the metropolis should have had the ability or the firmness to expose the attempted deception, and pluck the daw of his borrowed plumes.

To those who may not be acquainted with all that has been done in this part of pathology, it is sufficient to state, that the diagnosis in question, between the symptoms produced respectively by affections of the brain and of its membranes, is borrowed without acknowledgment from two French works, viz. Martinet and P. Duchatelet's Treatise on Arachnitis, and Lallemand's Six Anatomico-Pathological Letters on the Encephalon and its Dependencies. The latter in particular, a work of great merit and originality, has been pillaged without scruple.

Martinet and Duchatelet, however, have no cause for gratulation; they had already paid their tribute to English plagiarism. One Dr. Hawkins, some two or three years ago, treated the College of Physicians to a

series of lectures on the pathology of the brain and of its membranes, in which the descriptions, the anatomical researches, and the curiously-minute statistics of the two Frenchmen, are appropriated with all imaginable complacency, without a shadow of acknowledgment, or the escape of an expression which might indicate whence they were derived! This system is clearly "too bad;" the more so, as these cases, though gross and glaring, are far from being solitary or unparalleled. If people of this mediocre stamp feel their incompetence to observe and expound the laws of nature, and if their introduction to public animadversion be necessary or desirable, let them have recourse to imagination or any other faculty they may possess; but at best, let us request them to be honest enough to abstain from laying their hands on other people's property. If, however, principle and honour should be wanting to ensure men this small virtue, the public have a right to demand that the transgressors shall not escape the castigation of THE LANCET, pledged as it is to expose fraud and false pretences in whatever shape they present themselves.

CUIQUE SUUM.

ST. BARTHOLOMEW'S HOSPITAL.

ABSCESS IN THE CEREBELLUM.

ELIZA PURT, ætat. 19, was admitted into Faith's Ward, on the 13th of January, under the care of Mr. Lawrence. She has paralysis of the portio dura of the right side; during sleep the eyelid of the affected side is but half closed; and when she laughs, the muscles of that side remain motionless, and thus a rather ludicrous appearance is produced. She suffers severe pain in her head, but none of the functions of the body are disturbed. There are two excrescences in the meatus auditorius externus of the right side attended with purulent discharge.

She states that she has been subject to headach for the last twelve months, and that lately excrescences have appeared in the meatus. She has been married a fortnight, since which the pain in her head has increased to such an extent, as to compel her to come here to seek relief.

The treatment which was adopted was antiphlogistic, and consisted of five copious bleedings from the arm, the application of leeches to the head, a blister to the nape of the neck, and active purging. These remedies were attended with considerable mitigation of her sufferings; a portion of one of the excrescences came away, which also was productive of relief. The pain being still severe, her head was shaved, and ice applied to it. She was then submitted to a course of mercury, which affected her system in a few days. These measures were not capable of arresting the disease, and she died on the 27th of January.

Post-Mortem Examination seven hours after death.

Head.—Membranes of the brain perfectly healthy; the convolutions appeared paler than usual, and were much flattened, especially on the right side. There were no evidences of inflammation in the substance of the brain. Three ounces of very transparent fluid were found in the lateral ventricles. On dividing the tentorium, the right half of the cerebellum appeared enlarged, and its anterior part felt as if it contained fluid. When it was cut into, about half an ounce of thin, and very fetid, pus escaped; the parietes of the abscess were of a blackish-green colour, and the cerebellum was adherent to the meatus auditorius internus. On stripping off the dura mater from the petrous portion of the temporal bone, thick pus was seen on the upper surface of the superior wall of the tympanum. This was washed off, and ulceration of the bone beneath it was observed; there was an opening in it through which a probe was passed into the tympanum, which, when its superior wall was removed, was found full of pus. There were two excrescences in the meatus auditorius externus; one attached to the lower part of the meatus, the other to the membrana tympani, and in this membrane there were several small holes. The portio dura was examined, and exhibited its usual appearance.

The thoracic and abdominal viscera were healthy.

Pelvis.—The uterus and ovaries were enlarged, and in a state of congestion. The labia of the os uteri were prominent, and the posterior one more injected than the rest of the uterus. Several small eminences were seen on the surface of the ovaries, which Mr. Lawrence supposed to be ova ready to escape. Sections of the ovaries were made, and in the one on the right side a very beautiful corpus luteum was found.

SYPHILITIC ULCER OF THE EYELID.

Ellen Cole, ætat. 22, was admitted into Faith's Ward on the 27th of January, under the care of Mr. Lawrence. The superior lid of the right eye is so much swelled as to prevent her elevating it; is of a dark-rose colour, and a slight ulceration is seen on its ciliary margin, near the external canthus. When the lid is everted, a sore of a circular figure, and about half an inch in diameter, is seen on its conjunctival surface. The sur-

face of the ulcer is of a dark-ash colour, as are also the edges, which are raised and slightly irregular. The conjunctiva lining the lid is highly inflamed, but that covering the eye is not. There is a slight purulent discharge from between the lids, and with the exception of being unable to open the eye, she experiences no inconvenience. There are two syphilitic sores on the scalp, and one of them is rather extensive. Her tongue is white, bowels open, pulse natural, catamenia suspended during the last eighteen months.

She states that she is a servant, and that she had a clap three years since, but denies having ever had any other affection of her genital organs. *To take a dose of the compound senna mixture directly, and two grains of calomel, with a third of a grain of opium every eight hours.*

31. Swelling of the lid less than when she was admitted, but is still considerable; vascularity of the conjunctiva diminished. The surface of the ulcer is of a much lighter colour, and small red granulations are seen at several points. The discharge has nearly ceased, and the ulcers of the scalp are improving. Tongue clean, bowels open; pulse 70 and soft; her gums are rather sore, and there is an increased secretion of saliva. *Continue the calomel and opium.*

Feb. 2. The swelling of the lid has much decreased; the ulcer looks more healthy than it has hitherto done, and those on the scalp are also better; her mouth is very sore; she is in other respects the same. *Discontinue the calomel and opium.*

6. The ulcers are healing fast; her mouth continues very sore. *Let her use an alum gargle.*

14. The improvement has been rapidly progressive; the swelling of the lid has subsided; the ulcers are healed; the vascularity of the conjunctiva has disappeared, and she says she feels perfectly well.

LITERARY INTELLIGENCE.

Mr. E. W. Tuson, teacher of anatomy at the Little Windmill Street School, is preparing for the press a folio Fasciculus on the Anatomical and Surgical Parts of Inguinal and Femoral Hernia, illustrated by plates on a similar construction to those that have been already published by that author.

BOOK RECEIVED.

A Description of the Diseases and Accidents incidental to the Horse, wherein the Rock Oil of Barbadoes, or Green Mineral Naphtha, has proved a particularly useful remedy, with directions for its general use. By B. Hart, Zoatrist. London: Sherwood. 1834. pp. 48.

TO CORRESPONDENTS.

Mr. B. M. Bradford will find in our 388th No., that we had already inserted a reply on the subject of the Surrey Dispensary.

Medicus. In both cases he is safe.

Judicus. The market in that quarter is completely overstocked, and the pay has of late been so much reduced as to be considered a very inadequate remuneration.

Mr. Litchfield. Unfortunately surgeons cannot recover by legal means fees for attendance on coroners' inquests.

Probably *J. H.* had better forward his suggestion to the editors themselves

We should be very glad to comply with the wish of *Veritas* and his friends, had we more space, but an introductory lecture can hardly be expected to afford sufficient novelty to justify our publishing one at this moment.

A Pupil of St. Thomas's denies that the resolution of pupils attending the demonstrations at that hospital exculpate the demonstrator from the charges brought against him. He states that the resolution itself was proposed by the acting demonstrator, that not more than one-fourth of the students would sign it, and that many of those who did were old students who are not in the rooms above once a month. He repeats his statement that there are no demonstrations on a Thursday, that at Christmas there were none for *fifteen* days, and that for many hours in the week there is but one instead of two demonstrators present.

A Correspondent informs us that arrangements have been made between Dr. Addison of Guy's Hospital, and Mr. Cooper of the Webb Street School, which will permit the course of lectures delivering by the former gentleman to continue undisturbed.

Discipulus Esculapii. We believe the examination is, in Gregory's Conspectus, restricted to the first ten books, and to the first and third books of Celsus.

Mr. Gates. It is not necessary that he should be a medical practitioner; but, of course, a member of the medical profession must be deemed best qualified for such an office.

C. W. M. We regret to say there is no remedy.

The annual dinner of the teachers and pupils of the Aldersgate Street School took place on the 18th. We have not room for a report of the proceedings in our present Number.

J. R., S——d. It would have afforded us sincere pleasure to have rendered him assistance in the controversy in which he was engaged, but we feared that his position was not maintainable. Another communication, containing an account of the subsequent proceedings would be acceptable.

We beg to acknowledge the polite notes of the editors of several medical journals, and we regret that our arrangements will not allow of our accepting their offers to exchange. The business at our office is already too weighty to be managed without considerable difficulty, and we have hitherto found it inexpedient to exchange journals with any periodical whatever;—not from any unfriendly feeling, but on the ground that we are averse to add to the number of our already complicated arrangements.

R. C. The clerks are certainly allowed to make the additional charge for the supplemental numbers, but Dr. C. may spare himself any further uneasiness on the subject, as the opportunity for making the demand is not likely to recur. We value his friendship.

Inquirer. The disease is not dangerous, but we would earnestly recommend him to apply to a surgeon. There is not a man in the profession who, if our correspondent's circumstances are such as he states them to be, would withhold his gratuitous assistance. He may rest assured that this is the safest course, and will tend most to his advantage.

We are compelled most reluctantly to omit the insertion of Mr. Garden's note until next week.